PB82-197062

# Noise Emission Standards for Motorcycles and Motorcycle Exhaust Systems

(U.S.) Environmental Protection Agency
Washington, DC

Jan 81

U.S. Department of Commerce
National Technical Information Service
NTIS

PB82-197062

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
AIR, NOISE AND RADIATION
(ANR-490)

On December 31, 1980 the U.S. Environmental Protection Agency issued final noise emission standards for motorcycles and motorcycle exhaust systems. In a separate action, also on December 31, 1980, the Agency issued a Notice of Proposed Rulemaking for amending the testing requirements of the final regulations. Enclosed are information materials associated with those rulemaking activities. Due to the magnitude of groups and individuals on our mailing list, we apologize for not being able to write personal letters. If you need additional information relative to the motorcycle noise regulations, please contact:

Director, Standards and Regulations Division
Office of Noise Abatement and Control, ANR-490
U.S. Environmental Protection Agency
Washington, D.C. 20460;
or phone 202/557-7743

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United States
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Press Office (A-184)
Washington DC 20460

EPA

# Environmental News

FOR IMMEDIATE RELEASE
WEDNESDAY, DECEMBER 24, 1980

Newberry (202) 557-7666

EPA SETS STANDARDS FOR NEW MOTORCYCLES AND MOTORCYCLE REPLACEMENT EXHAUST SYSTEMS

The U.S. Environmental Protection Agency announced today the issuance of standards which limit the noise from newly manufactured motorcycles and motorcycle replacement exhaust systems.

The standards will be phased-in over a two to five year period beginning in 1983. Mopeds are considered "motorcycles" by EPA and will be covered, but will have only one standard to meet -- also imposed in 1983. No existing motorcycles, or any built before 1983, will be affected.

Some 93 million people are daily affected by traffic noise. Motorcycles are an integral and important part of the traffic stream.

The motorcycle manufacturing industry has been greatly concerned about potential restrictions on commerce as a result of being required to produce new motorcycles that will comply with a multiplicity of differing state and local noise standards. This regulation will preempt state and local noise standards for newly manufactured motorcycles, thereby providing national uniformity of treatment.

Motorcycles are the source of more annoyance and adverse community response than any other single traffic noise source. EPA realizes that much of this negative response comes about because of excessively loud, exhaust-modified motorcycles. Because of this, the Agency believes that both the noise from newly manufactured motorcycles and from modified motorcycles must be controlled if the public health and welfare benefits Congress expected when it passed the Noise Control Act are to be realized. To control the noise from exhaust modified motorcycles, the combined efforts of the Federal government and state and local governments are essential. In addition to providing the labeling and anti-tampering provisions of the regulation,

EPA will assist State and local governments in establishing complementary noise control programs including ordinances that will prohibit the use of noisy exhaust systems.

EPA has set 80 dB as the most stringent noise standard for street motorcycles and small off-road motorcycles. Although the standards are less stringent than those that were proposed, EPA anticipates that these standards will, on the average, reduce the noise from new street motorcycles by 5 decibels (dB) and by 2 to 7 dB on new off-road motorcycles by 1986. The exhaust system regulation and the "anti tampering" and labeling provisions of the motorcycle regulation in combination with strong complementary state and local programs, should help reduce exhaust modified motorcycles to between one-half and one-fourth their current numbers.

These reductions are expected to result in a 55 to 75 percent decrease in interferences with human activities (such as sleeping, conversation), depending on the extent to which State and local governments are able to contribute to reducing the numbers of exhaust-modified motorcycles. Likewise, these reductions are expected to result in a 7 to 11 percent decrease in the severity and extent of overall traffic noise impact, again depending on in-use enforcement.

The standards issued today, applicable to new motorcycles and to new motorcycle replacement exhaust systems, are as follows:

| Motorcycle Type | Not-to-Exceed A-weighted Noise Level | Efective Date |
|---|---|---|
| 1. Street Motorcycles | 83 dB | January 1, 1983 |
| | 80 dB | January 1, 1986 |
| 2. Moped Type Street Motorcycles | 70 dB | January 1, 1983 |
| 3. Off-Road Motorcycles | | |
| a. Displacement 170 cc and Below | 83 dB | January 1, 1983 |
| | 80 dB | January 1, 1986 |
| b. Displacement More Than 170 cc | 86 dB | January 1, 1983 |
| | 82 dB | January 1, 1986 |

EPA expects the costs of compliance to be reflected in increased purchase prices for motorcycles and exhaust systems. For street motorcycles, increases will average approximately 2% (or $36.00). The estimated purchase price increase for off-road motorcycles will average 2% (or $21.00). For replacement exhaust systems, the estimated purchase price increase will average 25% (or $30.00).

Although higher retail prices could result in some initial lost sales, total industry sales (in terms of both units and dollars) are projected to significantly expand in the next decade. Furthermore, because all mopeds that the Agency has tested, which are being sold in the United States, already comply with the 70 dB level set for these vehicles, EPA foresees no impact on moped prices and consequently on moped sales.

This is the fourth noise control regulation EPA has issued to limit traffic noise. Regulations have been issued for interstate motor carriers (October 19, 1974), newly manufactured medium and heavy trucks (April 13, 1976), and newly manufactured garbage trucks (October 1, 1979).

# # #

R-284

federal register

Wednesday
December 31, 1980

THIS DOCUMENT DIFFERS FROM THE FEDERAL REGISTER NOTICE OF WEDNESDAY, DECEMBER 31, 1980 (45 FR 86693) ONLY IN THAT, IN THE REGULATION, TYPOGRAPHICAL ERRORS, AND A SUBSTANTIVE OMISSION (AS MENTIONED IN THE FEDERAL REGISTER NOTICE OF MONDAY, JANUARY 19, 1981 (46 FR 4918)), HAVE BEEN CORRECTED.

Part III

# Environmental Protection Agency

**Noise Emission Standards for Transportation Equipment; Motorcycles and Motorcycle Exhaust Systems; Final Rule**

**ENVIRONMENTAL PROTECTION AGENCY**

**40 CFR Part 205**

**[N-FRL—1517-8]**

# Noise Emission Standards for Transportation Equipment; Motorcycles and Motorcycle Exhaust Systems

**AGENCY:** U.S. Environmental Protection Agency (EPA).

**ACTION:** Final rule.

**SUMMARY:** The Environmental Protection Agency (EPA) hereby establishes noise emission standards for newly manufactured motorcycles and motorcycle exhaust systems. This action is taken under the authority of the Noise Control Act of 1972 (42 U.S.C. 4901 et seq.). The regulation also incorporates an enforcement program which includes production verification requirements, selective enforcement auditing, compliance labeling, provisions for maintenance instructions, and anti-tampering provisions.

The Administrator has determined that the standards are feasible and represent those noise limits requisite to protect the public health and welfare taking into account the magnitude and conditions of use of the products, the degree of noise reduction achievable through the application of the best available technology, and the cost of compliance as required by Section 6(c)(1) of the Noise Control Act.

Compliance with the standards is expected to cause an average 5 decibel reduction in noise levels of new street motorcycles and a 2 to 7 decibel reduction in noise levels of new off-road motorcycles by 1986. In addition the standards for motorcycle exhaust systems are expected to cause significant reductions in motorcycle noise impact by controlling the availability of ineffective motorcycle exhaust systems. Without establishing these noise standards, the public's health and welfare would continue to be adversely affected by high levels of motorcycle noise. Lowering motorcycle noise levels is expected to result in approximately a 55–75 percent reduction in interference with human activities, and a 7–11 reduction in the extent and severity in overall traffic noise impact.

**EFFECTIVE DATES:** Effective January 1, 1983, all street and off-road motorcycles with an engine displacement of 170 cc and less manufactured after this date must not emit a noise level (A-weighted) in excess of 83 decibels (dB) when measured in the manner prescribed in the regulation; the not-to-exceed level is reduced to 80 decibels for vehicles manufactured after January 1, 1986. All off-road motorcycles with an engine displacement greater than 170 cc manufactured after January 1, 1983, must not emit a noise level in excess of 86 decibels; this not-to-exceed level is reduced to 82 decibels for vehicles manufactured after January 1, 1986. All moped-type street motorcycles manufactured after January 1, 1983 must not emit a noise level in excess of 70 decibels.

After the effective dates, all original equipment and replacement exhaust systems designed to be installed on Federally-regulated motorcycles must not cause those motorcycles to exceed the noise emission standards above.

**ADDRESS:** A copy of the Regulatory Analysis can be obtained from Mr. Charles Mooney, U.S. Environmental Protection Agency, EPA Public Information Center (PM–215), Room 2194 D—Waterside Mall, Washington, D.C. 20460.

**FOR FURTHER INFORMATION, CONTACT:** Mr. Fred Newberry, Project Officer, Standards and Regulations Division (ANR 490), U.S. Environmental Protection Agency, Washington, D.C. 20460; or phone (202) 557–7666.

**SUPPLEMENTARY INFORMATION:**

## 1.0 Introduction

On March 15, 1978, EPA proposed noise standards for newly-manufactured motorcycles and motorcycle exhaust systems (43 FR 10822). The purpose of the present notice is to establish final noise emission standards for motorcycles and motorcycle exhaust systems by adding Subpart D and Subpart E to amend Part 205 of Title 40 of the Code of Federal Regulations.

The legal basis and factual conclusions which support promulgation of this regulation were set forth in substantial detail in the proposed rule. In addition the Agency solicited public participation and established a comment period from March 15, 1978 through June 14, 1978. During this time, issues related to the proposed regulation were addressed in public hearings held in Anaheim, California, April 28–May 1, 1978; in St. Petersburg, Florida, May 5, 1978; and in Washington, D.C. May 9, 1978. All public comments submitted with respect to the proposed regulation have been given careful review and consideration. As a result a number of changes have been made to the regulation as proposed. The principal issues that emerged from the public comments, EPA's responses, and the resulting changes to the proposed regulation are discussed in § 3.0. Other changes to the proposed regulation are discussed in § 4.0.

All questions, comments, and issues raised in the public testimony and in written submissions to the docket, as well as other information supporting the regulation, are addressed in detail in the EPA document accompanying this rulemaking entitled "Regulatory Analysis of the Noise Emission Regulations for Motorcycles and Motorcycle Exhaust Systems."

Materials relevant to this rulemaking, as well as the written comments received during the comment period and transcripts of the public hearings, are available to the public at the EPA Headquarters Public Information Center, 401 M Street, SW., Washington, D.C. 20460. Transcripts of the public hearings are also available for inspection at each of EPA's 10 regional offices.

## 2.0 Summary of the Regulation

The regulation establishes noise emission standards for newly manufactured motorcycles and motorcycle exhaust systems. EPA evaluated several test procedures for measuring motorcycle noise and concluded that a test procedure developed by modifying the SAE J–331a test is the most appropriate for the final rule. This test procedure measures noise emissions of motorcycles under full throttle acceleration at specified percentages of the motorcycle's maximum rated engine speed, and at a fixed point in relation to a microphone location. For a comprehensive description of the test procedures, refer to Appendix I of the regulation. A detailed technical discussion is in the Regulatory Analysis.

**Table 2–1**

[Motorcycle Standards and Effective Dates]

| Motorcycle type | Not-to-exceed a-weighted noise level (dB) | Effective date |
|---|---|---|
| 1. Street Motorcycles | 83 | Jan. 1, 1983. |
| | 80 | Jan. 1, 1986. |
| 2. Moped type street motorcycles. | 70 | Jan. 1, 1983. |
| 3. Off-road motorcycles: | | |
| a. Displacement 170cc and below. | 83 | Jan. 1, 1983. |
| | 80 | Jan. 1, 1986. |
| b. Displacement more than 170 cc. | 86 | Jan. 1, 1983. |
| | 82 | Jan. 1, 1986. |

Effective on the dates listed, newly manufactured motorcycles must not produce noise levels in excess of those listed in Table 2–1 for a specified period, when tested and evaluated according to the methodology provided in Appendix I of Subpart D and E.

After the above effective dates original equipment and replacement exhaust systems designed and installed on Federally-regulated motorcycles shall not cause those motorcycles to produce noise levels in excess of the new vehicle standards listed in Table 2–1.

To ensure lasting benefits from this regulation, the Agency requires that manufacturers design and build each product so that, when properly maintained and used, its noise level will not degrade (increase) above the applicable levels in Table 2–1 for a specified period of time or use, from the date of the product's sale to the ultimate purchaser. This period is called the Acoustical Assurance Period (AAP). For street motorcycles and street motorcycle exhaust systems the AAP is 1 year or 6,000 km (3,730 mi.), whichever occurs first. The AAP for off-road motorcycles and off-road motorcycle exhaust systems is 1 year or 3,000 km (1,865 mi.), whichever occurs first.

In §§ 205.162–4 of Subpart D and 205.173–5 of Subpart E, a manufacturer must establish records regarding the anticipated increase in the noise level of his product during the AAP. These records may consist of a statement of engineering judgment, the results of durability testing or other information which the manufacturer deems adequate to support the fact that his products comply with the standard for the AAP.

Under the authority of Section 15 of the Act, § 205.152 of this regulation specifies the levels for a product to qualify as a Low Noise Emission Product (LNEP). Effective January 1, 1982, the following LNEP levels are specified: 75 dB for off-road motorcycles with engine displacements greater than 170 cc; 73 dB for street motorcycles with engine displacements greater than 170 cc; 71 dB for street motorcycles and off-road motorcycles with engine displacements 170 cc and lower; and 60 dB for moped-type street motorcycles. Effective January 1, 1989, the LNEP level for street motorcycles with engine displacements greater than 170 cc is lowered to 71 dB.

The regulation also incorporates an enforcement program which includes production verification requirements, selective enforcement auditing, compliance labeling, provisions for maintenance instructions, and anti-tampering warnings to consumers.

### 3.0 Discussion of Major Issues and Resolutions

The following is a summary of the major issues raised in the public hearings and in the written submissions during the public comment period, and the Agency's decision on those issues. See the Docket Analysis for a detailed discussion of all the substantive issues raised by the commenters.

#### 3.1 Issue

What should be the most stringent noise standard for street motorcycles?

*Comments*

Several motorcycle manufacturers and motorcycle trade groups commented that they were strongly in favor of Federal regulations at the 83 dB level which would preempt state and local regulations, but argued that the increased costs of meeting the 80 and 78 dB levels were not justified by the increased health and welfare benefits. Most state and local governments urged EPA to adopt standards at least as stringent as 78 dB.

*Decision*

EPA has set 80 dB as the most stringent noise standard for street motorcycles. In examining this issue the Agency recognized four factors, (1) that motorcycles are a major source of noise in the environment and regulations to restrict their noise must be issued, pursuant to the statute, if feasible; (2) Federal action is essential for motorcycle noise because of a number of differing state and local standards on new motorcycles impacting on commerce, thus necessitating national uniformity of treatment; (3) a major part of the national motorcycle noise problem can be attributed to the offering for sale and subsequent use of aftermarket exhaust systems which cause the otherwise conforming motorcycle to make substantially more noise than when the motorcycle was first offered for sale; and (4) that primary responsibility for control of noise rests with state and local governments, and therefore the Federal government's actions should complement and aid, where practicable, the efforts of state and local governments to meet their responsibilities.

Studies indicate that the 78 dB level is representative of best available technology. Although the 78 dB standard is affordable, cost effectiveness at the 78 dB level diminishes markedly from the 80 dB level. After a product has been identified as a major source of noise, Section 6(c) of the Act requires EPA to set noise levels requisite to protect public health and welfare taking into account the extent to which it is operated in the presence of other noise sources, what is achievable through application of best available technology and the cost of compliance. As mentioned above studies indicate that the level representative of "best available technology" for street motorcycles is 78 dB as measured by the proposed test procedure. No significant differences in quieting technology appear to exist between large and small motorcycles at this level so subcategorization of street motorcycles was not pursued. The 78 dB not-to-exceed regulatory level (estimated to require 76 dB production level motorcycles) would have probably required liquid cooling or other major engine changes for many motorcycles above 200 cc displacement. These changes would have also resulted in weight increases, performance penalties, and some styling difficulties as well as an increase in purchase prices (sales-weighted estimated 8% or $120). Aftermarket replacement (Non-OEM) exhaust systems which would have been manufactured to comply with regulations at a 78dB level would be expected to lose performance and styling advantages over the original equipment and have purchase prices rise about 50% ($60 increase). Similar performance and styling penalties are also expected for these exhaust sytems at the 80 dB level. However, purchase prices should now rise about 25% or $30.

Although most manufacturers have expressed opposition to a 78 dB standard, most also stated during the public comment period that they were in favor of the Federal regulations since they will provide preemption against the states and localities regulating this industry, thereby providing national uniformity of treatment. Many states and localities have such motorcycle noise ordinances now and, in some cases, have regulations projected to the future which are more stringent than the 80 dB standard, which EPA is promulgating under this rulemaking, or the 78 dB standard that was proposed.

A large part of the current motorcycle noise problem is attributable to vehicles with modified exhaust systems. This is demonstrated in Table 1 which compares the benefits of increasingly stringent noise standards for newly manufactured motorcycles and the benefits of reducing the percentage of motorcycles with modified exhaust systems.

An initial standard is necessary to implement the replacement exhaust system standards, and the labeling and anti-tampering provisions of the regulations as rapidly as possible (most new street motorcycles currently being produced already meet the 83 dB level). These provisions, together with the non-availability of noisy replacement exhaust system for new motorcycles, are

expected to lower the rate of exhaust system modifications from the current 12% of the motorcycle population of 7%. This is expected to result in a total reduction in noise impact at the 83 dB level of 17–36% (See Table 1). It is believed that more effective enforcement programs at the state and local level which make use of the labeling and the anti-tampering provisions in these regulations could reduce the incidence of exhaust system modifications to as low as 3% of the motorcycle population. This would be expected to bring a total 24–62% reduction in impact at the 83 dB level.

After the initial 83 dB standard for new motorcycle and replacement exhaust systems has been established, any further reduction in noise impact must come either from such reduction in the rate of exhaust modifications or from further reducing the noise levels of newly manufactured motorcycles. The benefit to be derived from an 80 dB standard, regardless of the level of exhaust modifications, is an additional 24% reduction in impact. At 78 dB there would have been an additional 8% reduction.

**Table 1.**—*Benefits and Costs*

| EPA regulatory level | Reduction in Impact [1] | | | Motorcycle price increase | Total annualized cost [5] |
|---|---|---|---|---|---|
| | With current 12% modifications [2] | With current 7% modifications [3] | With current 3% modifications [4] | | |
| 83 dB | 4–9% | 17–36% | 24–62% | 6 (0.3%) | $12 M |
| 80 dB | 15–43% | 47–56% | 61–75% | 36 (2.0%) | 94 M |
| 78 dB | 22–57% | 53–67% | 78–83% | 120 (7.6%) | 218 M |

[1] Percentage reduction in noise impact shown here apply to interferences with human activities. The range of values is attributable to differences in the impact of the regulation on various types of human activities (e.g., sleep, speech.) These measurements are used as an indicator of people's adverse reaction to noise intrusions.

[2] Effect of reducing noise level of new motorcycles only.

[3] Combined expected effect of exhaust system regulations, tampering and labeling provisions, and new motorcycle standards.

[4] With effective program at the state and local level.

[5] 1978 dollars.

Compared to the incremental benefits achievable through strong enforcement efforts at the state and local level the incremental benefits of setting a 78 dB standard over an 80 dB standard are small. Before the 80 dB level was selected as the final standard, the Agency had already started directing considerable efforts to working with states and localities under the Quiet Communities Act to establish complementary programs. EPA is hopeful that, through these and continued efforts, the additional projected reduction in modifications will be possible, although the Act gives EPA no authority to require communities to adopt and then enforce complementary ordinances. However, even if such a further reduction in modifications is not forthcoming, the 80 dB standard is expected to achieve at least a 33% reduction in motorcycle noise impact.

The Agency also considered the cost-effectiveness of a 78 dB level as compared to an 80 dB level. Namely, if the projected reduction in the number of modified motorcycles due solely to the Federal regulation is achieved, about 90% of the benefits provided by a 78 dB standard could be achieved by an 80 dB standard at less than one-half the costs, as shown in Table 1. It is not surprising, of course, that the marginal costs go up as standards become more stringent. This is a natural consequence of the way in which manufacturers are expected to apply noise abatement techniques. First, the manufacturers will apply those noise abatement techniques which can be done with least expense. Then the manufacturers will apply the next most expensive techniques and so on, until they achieve the necessary noise level reduction. A 78 decibel regulation would have made motorcycles cost an average of eight percent more while the price increase for motorcycles at the 80 dB level will be about two percent.

EPA also examined whether setting a 78 dB standard rather than an 80 dB standard with the associated increased performance losses would have been accompanied by an increased incidence in consumer modification of the exhaust system to regain performance, thereby more than offsetting the projected additional health and welfare benefits. The motorcycle exhaust system regulation will make it illegal to manufacture or sell non-complying exhaust systems for regulated motorcycles, thereby precluding many of the consumer modifications. Of course, some motorcyclists may buy exhaust systems for pre-regulation motorcycles and install them on their regulated motorcycles. Others may use straight pipes or attempt to remove the baffles from the complying exhaust system. It is possible that more consumers would have made such modifications to their exhaust system at a 78 dB level than at an 80 dB level in an attempt to regain any associated loss of performance. In any event, setting the final standard at 80 dB decreases the risk that such modifications might increase.

The Agency also examined the potential impact of the regulations on motorcycle manufacturers. Most motorcycle manufacturers are expected to meet the 80 dB level with little difficulty. Harley-Davidson has indicated that, although they can build a motorcycle which can meet a 78 dB standard, to do so they would have been forced to drop their air-cooled V-twin engine upon which their current unique niche in the market is substantially based. Thus, a 78 dB standard would have posed a serious marketing problem for Harley-Davidson. For Bombardier of Canada and many of the European manufacturers, a 78 dB standard could have caused some of them to discontinue exporting some of their models of street motorcycles to the U.S.

Although the primary responsibility for control of noise rests with state and local governments, the Agency plans to assist states and localities by effectively enforcing these regulations as to manufacturers of motorcycles and aftermarket exhaust systems, and providing them with strong support for adopting complementary programs. As mentioned earlier, the Agency is already directing considerable efforts to working with states and localities under the Quiet Communities Act. EPA believes that through such efforts, the projected reductions in aftermarket exhaust system modifications (Table 1) will be possible, resulting in significant health and welfare benefits at the 80 dB level.

The Agency also believes it needs to be cognizant of the fact that, with the preemptive features of the Act, it is taking away the state and local jurisdictions' power to regulate manufacturers and must in return make sure the Federal regulations are sufficiently stringent. In the latest amendments to the Noise Control Act, Congress expressed some real concern about the extent to which the Agency was preempting states and localities without providing them protection comparable to that which they could

provide themselves. Congress added a provision in 1978 which will allow states to petition EPA for more stringent standards, should the Agency set ones which are less stringent than they would like.

The Agency believes, as discussed above, that a large part of the current motorcycle noise problem can be attributed to vehicles with modified exhaust systems. To give the public relief from this noise problem the Agency is issuing these regulations with provisions to control the number of modified motorcycles, in addition to setting noise limits on newly manufactured motorcycles. The regulations will not only provide for national uniformity of treatment for manufacturers, but will also assist states and localities in their efforts in reducing the number of modified motorcycles.

In conclusion, although a 78 dB standard is affordable, we believe that 80 dB represents a more reasonable choice for the Agency. The costs of reaching a 78 dB standard are twice the costs of the 80 dB standard. Although this factor, standing alone, would not necessarily cause EPA to select 80 dB as the final standard, this in combination with other factors argues for an 80 dB level. Specifically, an 80 dB standard will avoid much of the performance penalties and the resulting possibility of increased consumer modifications at the 78 dB level, and will also avoid the potential economic dislocation to Harley-Davidson and foreign manufacturers discussed above. Moreover, ther 80 dB standard retains 90% of the benefits compared to the 78 dB level. EPA intends to further maximize the benefits of the 80 dB standard with a vigorous Federal enforcement effort and support for complementary state and local programs aimed at reducing the rate of modifications. In these circumstances, EPA has decided to set 80 dB as the most stringent noise standard for street motorcycles.

The Agency believes that to make these regulations highly effective, it will need additional support from the motorcycle public. EPA solicits the sincere efforts of the motorcycle industry including motorcycle and exhaust system manufacturers, distributors and dealers, motorcycle trade associations, motorcyle enthusiast associations, and motorcycle publications, to work with EPA, states, and communities to discourage illegal modifications to motorcycle exhaust systems. For example, in advertisements and elsewhere, the quietness of new motorcycles and replacement exhaust systems could be promoted as a positive factor. Trade associations and other interested parties could support public awareness programs to increase the sensitivity of motorcyclists to the viewpoint that excessive noise is an unwanted intrusion to the community and a public relations problem for motorcyclists and the motorcycle industry. Also, the motorcycle manufacturers could warn their dealers against offering for sale or installing illegal exhaust systems. The motorcycle manufacturers could provide salient warnings to purchasers that their warranty is voided by improper modifications. Peer pressure against making modifications which increase a motorcycle's noise level could also go a long way toward reducing this problem. Finally, the industry could work closely with states and localities in the design and implementation of fair and effective local noise control ordinances aimed at reducing illegal modification of these vehicles.

**3.2 Issue**

What should be the final-step standard for off-road motorcycles?

*Comments*

Several manufacturers commented that the proposed standards for off-road motorcycles are too stringent and will result in performance penalties. Manufacturers and trade associations questioned the Agency's justification for setting different standards for small and large displacement off-road motorcycles. One manufacturer stated that small off-road motorcycles are more difficult to quiet than large off-road motocycles because the smaller motorcycles have greater sensitivity to weight increases and less space for modifications. State and local governments and several interest groups, on the other hand, argued that the large off-road motorcycles should have to meet the same standards as street motorcycles and small off-road motorcycles. The statutory requirements, as discussed for street motorcycles, will apply here as well.

*Decision*

The standards proposed by the Agency for small and large off-road motorcycles are based on technology, cost, and health and welfare considerations. The Agency still finds that small displacement off-road motorcycles require substantially different degrees of treatment to reach reduced noise levels, with substantially lower costs and performance penalties then large displacement motorcycles. The factors discussed above in support of the 80 dB standard for street motorcycles apply here, as well.

The Agency has reason to believe that small off-road motorcycles, the most populous class of off-road motorcycles, are more likely to be operated in and around urban fringe areas where noise level reductions and significant noise impact relief could be achieved at a 78 dB or an 80 dB level. Although some small off-road motorcycles already meet the proposed levels, small displacement semi-competition models often exceed 90 dB.

The 82 dB regulatory level is selected for large off-road motorcycles because technology is available at reasonable costs with acceptable associated performance penalties. Studies indicate that levels stricter than 82 dB for large off-road motorcycles would exact severe performance penalties that would have a substantial impact on the character of the sport of off-road motorcycling as it is known today. Stricter levels could also increase the tendency of users either to modify their off-road motorcycles or to abuse the intended distinction between genuine competition and non-competition motorcycles by using uncontrolled competition off-road motorcycles for recreational riding.

Since some new off-road motorcycles are extremely loud, any reasonable Federal regulation, with its tampering, replacement muffler and labeling provisions, can help reduce the impact of off-road motorcycling noise considerably. However, even with the most stringent Federal noise standards for large off-road motorcycles, incompatible land use will continue to exist, and restrictions on the use of off-road motorcycles in wilderness areas and in residential areas will still be necessary in many jurisdictions.

**3.3 Issue**

Are the proposed lead times sufficient?

*Comments*

Several motorcycle manufacturers and two motorcycle trade associations reported that the proposed lead times are too short, making compliance with the standards difficult and possibly unattainable. A motorcycle interest group commented that the proposed lead times are very generous. A citizen's group against noise suggested lead times are more stringent than the proposed lead times.

*Decision*

The Agency has extended the compliance lead times in response to the industry comments. Since the replacement exhaust system standards

and tampering and labeling enforcement tools in these regulations are expected to have the largest initial impact in reducing motorcycle noise, an initial, essentially status quo standard of 83 dB for street motorcycles and small off-road motorcycles (engine displacement 170 cc and less) and an 86 dB standard for large off-road motorcycles (engine displacement greater than 170 cc) will go into effect as quickly as possible (January 1, 1983). Most of these motorcycles already meet this level, although a few will need limited additional quieting.

Based on submissions during the public comment period, the short lead times (three years for the 80 dB standards and 6 years for the 78 dB standard) in the proposed rule could pose problems for AMF/Harley-Davidson, the only major U.S. manufacturer, and for other smaller motorcycle manufacturers (mostly European). Similarly, some manufacturers of large off-road motorcycles contended that the 82 dB standard would be difficult to meet in a three year lead time. In the final rule, street motorcycles and small off-road motorcycles will be required to meet the 80 dB standard, effective Janaury 1, 1986 (five years lead time.) Large off-road motorcycles (engine displacement greater than 170 cc) will be required to meet an initial standard of 86 dB, effective January 1, 1983, and a final standard of 82 dB, effective January 1, 1986 (5 years lead time). The standards can be achieved by the four largest manufacturers in the industry (all Japanese—accounting for 90% of the U.S. market) on an orderly basis. The standards are achievable by the smaller manufacturers provided they are willing to make the necessary investments in research and development to redesign their engines. For these manufacturers the extended effective dates should allow them ample time to develop, retool, and manufacture their redesigned, complying products.

It is relevant that several States, with more stringent standards than the Federal standards, have given the motorcycle industry notice that quieted products would be required by them in the near future, assuming Federal standards were not issued. Thus, the industry has known for several years that increasingly more stringent noise levels would be required in the 1980's.

**3.4 Issue**

Should the stationary test value on the motorcycle label be used as the noise standard by replacement exhaust system manufacturers?

*Comments*

Several exhaust system manufacturers commented that the correlation between stationary tests and pass-by tests is poor. One manufacturer stated that exhaust system manufacturers will be forced to use the pass-by test procedure to demonstrate compliance because of the poor correlation of the stationary test.

*Decision*

The Agency agrees that the poor correlation of the proposed F50 stationary test with the proposed pass-by test makes the use of the F50 label value as a standard for exhaust system manufacturers undesirable. In reviewing the test data, EPA found that an F50 test, which shows that an aftermarket system exceeds the level on the motorcycle label, provides no assurance that the aftermarket system fails to comply with the Federal pass-by standard. Likewise, an F50 test, which shows that an aftermarket system complies with the level on the F50 label on the motorcycle, provides inadequate assurance that the aftermarket system complies with the Federal pass-by standard. This lack of correlation argued against the adoption of this scheme in the final rulemaking.

The purpose of the proposed F50 test was to provide a means by which manufacturers could certify that their exhaust systems meet the Federal standard, using a less complicated and less expensive test procedure than the Federal pass-by test procedure. The Agency investigated the possible substitution of a high-correlation stationary test for the F50 test. A significant amount of work towards the development of such a test procedure has been done. This test is called the "stationary ignition disable," or SID, test procedure.

The preliminary study of the feasibility of such a test was conducted by McDonnell Douglas under contract to EPA prior to the publication of the proposed regulation. The results of that study were summarized in Appendix J of the Background Document for the proposed regulation. The data were encouraging, showing a correlation coefficient with the pass-by test procedure of .97 to .98. This stationary test procedure differs substantially from the F50 stationary test procedure. The F50 test procedure is a static test in which the motorcycle engine is run at a constant 50% of max rated RPM for the noise measurement. The SID test, on the other hand, requires that the motorcycle engine be accelerated at full throttle to the same closing RPM as is required in the pass-by test. This is conducted with the motorcycle in a stationary position and the transmission in neutral.

Prior to publication of the proposed regulation, consideration was given to proposing this SID test as the Federal test procedure. However, the availability of only relatively limited data, and the inexperience with this test procedure, and its possible limitations caused the Agency to ask for comment on the procedure in the proposed regulation while not formally proposing it for regulatory compliance.

Because the subsequent comments indicated significant problems with the F50 test procedure, the Agency further investigated the SID test. Improved "ignition disable" instrumentation was developed by EPA for a special evaluation of this test procedure. The results of this evaluation were encouraging but the instrumentation for the test procedure required further refinement to be useful to small replacement exhaust system manufacturers and to state and local enforcement agencies. In addition, several of the motorcycles in the test program were not compatible with the instrumentation for the SID test procedure. These problems remain to be solved.

The Agency encourages further work towards the development of a suitable stationary test by voluntary consensus standards organizations, or by manufacturers or manufacturer associations which may see potential cost savings in doing so. EPA would consider adopting such a stationary test procedure in the future, in addition to or in lieu of the Federal pass-by test procedure for motorcycles and replacement exhaust systems, if adequate correlation can be demonstrated and the test is compatible with all types of motorcycles. Section 205.167 was added to Subpart E of the final rule to provide for the Agency's consideration of alternative test procedures.

The Agency also recognizes that a stationary test procedure with good correlation to the Federal pass-by procedure is desirable for use by state and local governments in enforcing against illegal modifications and in identifying those motorcycle exhaust systems which degrade rapidly in their noise attenuation capability. Also, the Agency is interested in using a stationary test procedure in surveillance testing of products in use. Namely, the stationary test would be used to screen products in use for subsequent testing by the Federal pass-by procedure to determine compliance during the Acoustical Assurance Period. The Agency has already done preliminary

work on a stationary test procedure and welcomes the participation of other interested parties in the continued development of a suitable procedure.

Because no currently available stationary test shows adequate correlation with the Federal pass-by test procedure, the final rulemaking requires the exhaust system manufacturers to use the Federal pass-by test procedure to demonstrate compliance with the standards. EPA anticipates that most of the aftermarket exhaust system manufacturers will have to hire an independent contractor with the required facility to conduct the testing. The Federal pass-by procedure is not a highly complicated test procedure requiring special "test facilities." Rather, the only major additional requirement of the pass-by test over a stationary test is a 50 foot by 100 foot flat section of pavement. The cost difference between using a short test and using the Federal pass-by test is expected to cause a 1 to 2 percent price increase in replacement exhaust systems.

**3.5 Issue**

Should motorcycle manufacturers be required to label their motorcycles with F50 stationary test values for use by state and local officials to detect tampering and the use of ineffective or faulty exhaust systems. (Note: The previous issue addressed only the use of the F50 test by exhaust system manufacturers for demonstrating compliance with the Federal standards.)

*Comment*

Two motorcycle trade associations questioned the usefulness of the stationary test values on the motorcycle label because of correlation difficulties. One representative of a state government commented that the F50 stationary test value stamped on the motorcycle frame only applies to the original equipment muffler. Further, he commented that unless the F50 labeling scheme is linked to the exhaust rather than to the motorcycle, in-use enforcement will not be workable. Many commented that the label needed to be simplified.

*Decision*

The primary purpose of the F50 label was to provide a guide for State and local in-use enforcement in their efforts to detect tampering and the use of ineffective or faulty exhaust systems. In the proposed regulation, we proposed that the motorcycle manufacturers label each of the motorcycles that they sell with a F50 value that corresponds to that particular model of motorcycle. However, the Agency agrees that this F50 value is correct only for the original equipment manufacturer's (OEM) exhaust system. Our tests show that motorcycles with aftermarket exhaust systems, even though those systems may in fact not cause that motorcycle to exceed the Federal pass-by standard, can have F50 levels considerably in excess of or considerably below the level on the motorcycle label.

As a result, motorcyclists riding in those jurisdictions which looked to the F50 label value on each motorcycle as the in-use noise standard could have experienced the following: when tested by state or local officials, some motorcyclists could have been ticketed for operating excessively loud exhaust systems even though they would pass the Federal pass-by standard; other motorcyclists who had tampered with their replacement exhaust system could have passed the F50 test even though they would have failed a pass-by test by a considerable margin. Thus, the Agency agrees that the proposed F50 labeling program is undesirable.

In fact, for the F50 label scheme to be workable, each different exhaust system, whether OEM or aftermarket, would have to be lableled with an F50 value on the label for each motorcycle that it fits. However, this scheme would require aftermarket manufacturers to place a relatively complex label on each replacement exhaust system intended for regulated motorcycles. And, the Agency would need an extensive enforcement effort to determine whether the manufacturers had labeled correctly. A final consideration is that state and local enforcement officials are unlikely to make use of such a complex label. These considerations, taken together, ruled against this approach.

Another possibility that the Agency considered was not to require any F50 values on either the motorcycle or muffler label, but rather to set a single F50 standard for use by state and local enforcement which would hopefully provide detection of at least the more serious instances of tampering. Preliminary analysis has indicated, however, that to avoid incorrectly citing motorcycles which would pass the Federal pass-by standard, the single F50 standard would have to be set fairly high. And if the standard were set at this level, enforcement officials would be able to cite only one-fourth of the loud motorcycles which they stopped. Further, the 25% which would be cited would not necessarily be the truly noisiest motorcycles (as determined by the pass-by test). Thus, this approach is also in doubt.

How an F50 labeling scheme relates to other approaches that might be taken by state and local governments to deal with the motorcycle modification problem affects the need for the proposed stationary test value to be on the label as well as the likelihood of state and local utilization of such a scheme. There are essentially three approaches that state and local governments can use to address a motor vehicle noise problem.

One approach is the street noise standard. This usually consists of a not-to-exceed level measured at curb side or some specified distance from the roadway. The specified not-to-exceed level may be different for various roadway situations. For example, in several states on streets with speed limits less than 35 mph, it is illegal for a motorcycle to exceed one specified noise level, and on streets with speed limits greater than 35 mph, it is illegal for a motorcycle to exceed a higher specified noise level. Some jurisdictions differentiate between streets with less than 1% grade and streets with more than 1% grade with regard to allowable noise levels. As provided by Section 6(e)(2) of the Act, state and local governments are not preempted by Federal regulations from establishing and enforcing such controls on environmental noise.

The fundamental difference between this type of standard and an F50 standard is that the way a motorcyclist operates his motorcycle (i.e., whether he accelerates rapidly or slowly) strongly affects the street level measurement. By contrast, the F50 standard is an equipment standard as opposed to an environment standard and is unaffected by whether a particular motorcyclist may be more aggressive or less aggressive than the norm in operating his motorcycle. Thus, it is possible for a person with a very loud modified motorcycle to operate it in such a way as to pass the street standard even though he would certainly fail an F50 test. Likewise, it is possible for a complying motorcycle to be operated so aggressively as to violate a stringent street standard.

A second approach available to state and local jurisdictions is to adopt and enforce the Federal labeling and anti-tampering provisions provided by these final regulations. For example, competition exhaust systems are required to be labeled as proper for use on competition motorcycles only; all other exhaust systems intended for regulated or unregulated motorcycles must be labeled as such. State and local jurisdictions will thereby have a means of keeping the competition type exhaust systems off the street and out of non-competition events in off-road riding,

and of keeping unregulated exhaust systems off the quieter regulated motorcycles.

The third approach is the in-use equipment standard, be it a stationary test standard or a pass-by test standard. The pass-by test established by this regulation is intended for use by manufacturers. Because of its complexity, it is not generally suitable for state and local enforcement purposes. The simple stationary tests usually offer such a poor correlation that they would seem to be highly ineffective in actual use.

The scheme of requiring a label on the muffler with an F50 value for each different motorcycle that it fits does significantly reduce the correlation problem. But it is complex because of the need for the enforcement officer to determine the RPM for the test from the label on the motorcycle frame, to identify which model of the motorcycle he is inspecting and to interpret which levels should be applied to this motorcycle from the several different levels on the muffler label. It also relies on an expansive enforcement program or on the good faith of many exhaust system manufacturers and still suffers, albeit to a reduced extent, from correlation related difficulties.

Few of the comments received from state and local governments mentioned either criticisms of or support for the proposed F50 label scheme. Of 84 written submissions by state and local governments, only 12 specifically mentioned labeling. Eleven of the 12 endorsed the labeling concept, but only 2 of the 11 specifically mentioned the stationary test. The one submission that did not endorse the labeling concept specifically did not support the stationary test.

In summary, it is likely that most state and local governments would not utilize a Federal F50 labeling scheme. Other approaches to controlling motorcycle noise at the state and local level, such as the street noise standard and enforcement of the Federal labeling and anti-tampering provisions, are more workable at the present time.

As a result of these considerations, the requirement for motorcycle manufacturers to conduct F50 stationary tests and place the resulting measurement on a label is deleted in the final rulemaking. Product labeling, however, is still required. To respond to comments that the proposed label needed to be simplified and to remove the F50 stationary sound level information from the label format, the label wording has been substantially condensed. See § 205.158 and § 205.169 and definitions in § 205.151(a)(8) and (20).

**3.6 Issue**

Should mopeds be omitted from the final motorcycle noise regulation?

*Comments*

Several moped manufacturers, a moped trade association, and an individual commented that EPA does not have the statutory authority to regulate mopeds since EPA has not identified mopeds as a major source of noise either individually or as a part of a class. A moped trade association and two moped manufacturers contended that regulating mopeds will not provide health and welfare benefits to the public because mopeds are currently quiet and are likely to remain quiet. One manufacturer stated that it will be difficult to get a test site for mopeds that has an acceptable ambient noise level.

*Decision*

EPA has retained mopeds in the final motorcycle noise regulation. Motorcycles were identified under the authority of Section 5(b)(1) of the Act as a major source of noise on May 28, 1975 (40 FR 23105). The intent of that notice was to identify the class of motorcycles as a major source of noise; and the identification was based on the total impact of motorcycle operations. The identification did not specify which types of motorcycles or motorcycle operations were responsible or further define at that time all of the various vehicles which are included in the class of vehicles known as motorcycles.

States refer to mopeds as motorized bicycles, bicycles with helper motors, class "C" motorcycles (New York), and simply as mopeds. The noise standards of the International Standards Organization (ISO) refer to mopeds as "motorcycles" with an engine capacity which does not exceed 50 cc's. The National Highway Traffic Safety Administration (NHTSA) refers to mopeds as motor driven cycles with specified limits on maximum speed, horsepower, and engine displacement. However, "most mopeds cannot be considered truly pedalable because of their heavy weight (100 lbs. compared to 20 to 40 lbs. for bicycles) and extremely low gearing which means the rider has to pedal fast and hard" (Consumer Guide Magazine). The pedals and other special attributes, such as a top speed of 25 to 30 mph and a maximum engine power rating of 1 to 2 hp, are designed to qualify the moped for less restrictive operator licensing restrictions, nominal state registration fees, and exclusion from otherwise mandatory helmet and insurance requirements. By function, they are small motorcycles with limited engine displacement. For these reasons, the Agency considers mopeds to be a part of the motorcycle class.

Although most new mopeds are quieter than other new motorcycles during acceleration, their noise levels are comparable to new motorcycles during low speed cruising because the moped must operate at or near full throttle to maintain its top speed of 25 or 30 mph. The average A-weighted noise level of current new larger motorcycles at a cruising speed of 25 mph is about 68 dB while the level of 7 mopeds that were tested, at their maximum speed of 25 to 30 mph varied from 60 to 69 dB (based on a 50 foot microphone distance from the vehicle's path). Notably, the average new automobile has an average noise level at a cruising speed of 25 mph of only 61 dB, which is lower than the average moped at the same speed.

EPA has identified a day-night sound level ($L_{dn}$) of 55 dB as the environmental noise level below which no significant adverse impact on public health and welfare occurs. The Agency therefore desires, from a health and welfare perspective, to quiet all noise sources substantially below the 70 dB level in order to bring about an acceptable environmental noise level. Standards have not been set this low in regulations for trucks and other sources because of the limits of available technology and the cost of compliance. Although new mopeds may be quiet when compared to new trucks, EPA does not believe that new mopeds should be permitted to have increased noise levels in the future especially when there are no costs (other than the small cost of showing compliance to EPA) associated with meeting the 70 dB standard. All mopeds that the Agency has tested, which are being sold in the U.S., easily comply with the standard.

In Europe where mopeds are much more numerous than in the United States, mopeds with ineffective exhaust systems contribute significantly to the motor vehicle noise problem. This noise problem can be attributed to the removal of mufflers to make the moped engine sound more powerful and the failure to replace faulty exhaust systems. EPA believes that the European experience with mopeds, similar in many respects to the current motorcycle noise problem in the U.S., is also likely to be repeated in this country as the moped population continues to grow. One aftermarket company is already marketing parts and services to increase moped horsepower and performance. A substantial market for such performance

products as racing exhaust pipes for mopeds can be expected. The use of such exhaust systems can increase vehicle noise levels by as much as 20 dB. Modified mopeds would be considerably noisier than larger motorcycles meeting the noise standards. Because mopeds are likely to be operated on local residential streets and in back yards where ambient noise levels are lower than more highly trafficked areas, such modified mopeds would stand out and would likely be quite annoying to the residents exposed to the noise.

However, if mopeds and moped replacement exhaust systems are regulated, sales of replacement exhaust systems designed specifically to increase the noise levels of mopeds will be curbed. Without such a regulation, sales of these noise producing products could be expected to continue to grow as the moped population increases, and similar problems caused by noisy replacement exhaust systems for larger motorcycles would result.

In the absence of a Federal rule for mopeds and moped replacement exhaust systems, the resources required by state and local governments to counter the moped noise problem could be substantial. By including mopeds in this rulemaking, state and local governments will receive significant benefits even if they take no further steps. With this rulemaking, coupled with anti-tampering efforts by state and local officials, a serious moped noise problem in this country could be substantially avoided.

Those moped manufacturers that find it difficult to locate test sites with acceptable ambient noise levels will be allowed to test with the microphone at 7.5 meters from the vehicle path, rather than 15 meters specified in the moped test procedure, and subtract a correction factor of 6 dB from their measurements. Since the tested noise levels would then be higher, the problem of finding a test site with an ambient level 10 dB below the regulatory level should be effectively eliminated.

The intent of the final rule is the same as originally proposed; that is, to set a not-to-exceed standard for mopeds, to prevent replacement exhaust systems from causing mopeds to exceed that noise emission standard, to institute the anti-tampering provisions of the Noise Control Act, and to require product labeling.

The specified administrative requirements in the final rule for moped manufacturers to show compliance with the standard are the same as for other motorcycles. However, the manufacturers of mopeds are expected to use the carry-over provision to reduce the production verification testing requirements in subsequent model years. The Agency believes that moped manufacturers can make effective use of this carry-over provision because the standard is a one time standard and because mopeds are expected to have noise levels well below the standard. Furthermore, moped manufacturers will have a limited number of models which must be production verified in the first year.

The final rule has been changed to clarify that "nopeds" (mopeds without pedals) are covered by the regulation. Paragraph 205.151(a)(2)(ii)(D) has been deleted from the proposed definition of mopeds, so that mopeds with and without pedals are included in the moped definition and will be required to comply with the not-to-exceed noise standard.

### 3.7 Issue

How should EPA deal with the problem posed by exhaust systems with removable baffles and highly degradable components? In the proposed regulation, the Agency asked for comments on the feasibility of establishing design criteria for exhaust systems to determine whether systems would be able to meet the applicable noise standard for the duration of the Acoustical Assurance Period (AAP).

*Comments*

Manufacturers and trade associations opposed the establishment of design criteria on the basis of lack of statutory authority and, in the words of one manufacturer, because "design criteria restrict innovation, reduce competition, and foster the continuation of obsolete technology." One major manufacturer commented that insufficient data were available to evaluate muffler durability by design criteria.

A motorcycle interest group and a public interest group suggested that EPA require that replacement exhaust systems be sealed with no removable fibrous packing or baffles.

*Decision*

It is of paramount importance to the success of these final regulations that motorcycle exhaust systems retain their noise suppression performance in actual use. Exhaust systems which lose their noise attenuation characteristics, whether due to removal of baffles or degradation of components, will seriously diminish the health and welfare benefits that would otherwise be derived from this rulemaking. To deal with the problem of highly degradable components in motorcycle exhaust systems, the motorcycle and motorcycle exhaust system noise emission regulation includes an Acoustical Assurance Period (AAP). Products must, when properly maintained and used, continue to meet the applicable standard for the duration of the AAP.

In the proposed regulation, EPA solicited comments concerning a program by which exhaust systems' potential compliance with the standards for the AAP would be judged based on design characteristics. It was thought that conformance to design criteria rather than noise levels might make it easier for manufacturers to demonstrate and for EPA to ensure compliance with the applicable Federal performance standards over the specified AAP. However, based on the unfavorable public comments and upon further analysis, the Agency has decided against establishing design criteria for exhaust systems.

Also in the proposed regulation, manufacturers were required to develop a Sound Level Degradation Factor (SLDF). The SLDF was the manufacturer's estimate of the increase in noise emissions during the AAP expected when the exhaust system was installed on a motorcycle for which it was designed and marketed. In the proposed regulations, EPA required that manufacturers design products which, when installed on the intended motorcycle, limited noise emission at the time of sale to levels no greater than the standard set by the regulations minus the manufacturer's SLDF for the product. The requirement that manufacturers compute and use an SLDF, as described in the proposed rule, has been deleted from the final rule. However, as discussed later, each manufacturer must retain records containing the information or statements of engineering judgments upon which the manufacturer relied in determining that his product will meet the standards throughout the acoustical assurance period.

The Agency deleted the requirement for several reasons. First, degradation of noise emission components and the removal of baffles is not expected to be a uniformly serious problem for all types of exhaust systems. Noise suppression performance of properly designed motorcycle mufflers and silencers generally does not degrade significantly over the life of the product when used and maintained in a proper manner, and some manufacturers produce internally baffled or sealed exhaust systems which present little opportunity or incentive to owners or users of the product to remove baffling material. Second, the

Agency is considering action, described below, more directly focused on the problem of removable baffles. Finally, EPA believes adequate enforcement activity with respect to highly degradable components can be conducted without requiring manufacturers to compute a discrete SLDF, and to report it to EPA. Therefore, the SLDF has been deleted from this regulation.

The requirement remains that manufacturers design and build products that will meet the standard for the AAP. Manufacturers must take whatever steps they find necessary to assure their products' compliance. The Agency will conduct noise emission testing of products after those products have been in use to determine if the products are meeting the standard for the AAP. If it appears from the results of surveillance testing, from state and local enforcement activity, or from other information that particular products are exceeding the standard during the AAP, the Agency may order individual manufacturers to perform such testing (including reasonable durability testing) as EPA determines is necessary to demonstrate whether the products are in compliance with the regulation. EPA may order that the manufacturer report the results of such testing to EPA, or in the alternative, the agency may itself conduct such testing. The authority for this testing is Section 13(a) of the Act.

The final regulation also provides for maintenance of records by the manufacturer concerning durability of the noise attenuation characteristics of the product during the AAP. Although the manufacturer determines how much analysis or testing will provide him with adequate assurance that his products meet the standard, the information upon which he relies is required to be maintained and is subject to inspection by EPA. Because of the difference in the durability of currently marketed products, the Agency expects that the types and volume of records will differ considerably among the mufffler categories. In some cases, a brief statement of engineering judgment may suffice. In other cases, more extensive noise emission testing and analysis may be necessary for the manufacturer to be confident of compliance.

Finally, there is the problem of removable baffles. EPA is aware of several four-stroke exhaust systems currently available which have easily removable baffles. Removal of these baffling units can cause a motorcycle's acceleration noise level to increase by as much as twenty decibels. Although the removal of baffles from a Federally-regulated motorcycle exhaust system would constitute a tampering violation of Federal law under the provisions of the Noise Control Act, this is and can be expected to remain a major noise problem unless the Agency takes further action.

To deal directly with the problem of removable baffles, elsewhere in today's **Federal Register**, the Agency is proposing an amendment to these regulations. The proposed amendment would require that manufacturers conduct the testing required to demonstrate compliance with the noise standards *with all easily removable components of the exhaust system removed.* An "easily removable component" is defined as "any part (not to include header pipes, expansion chanbers, or the muffler shell) that can be removed without causing highly visible damage to the exterior of the exhaust system by removing bolts, screws, or similar fastening devices, or by shearing spot welds with hammer and chisel, or by other simple means of dislodgement." The purpose of this proposed amendment is to encourage manufacturers to design exhaust systems which will reduce the incidence of tampering by consumers. Comments are solicited in the preamble to the proposed amendment and will be analyzed prior to the adoption of a final rule.

**4.0 Other Changes to the Proposed Regulation**

*205.151 Definitions*

The following definitions were added to clarify the wording changes in the labeling Sections (205.158 and 205.169): (13) "Closing rpm," (25) "Noise Emission Standard," (30) "Serial Number."

Wording changes were made to clarify the definition of (11) "Closed course competition event."

*Subpart E Title*

The word "Replacement" was removed from the title of Subpart E to made it clear that the provisions of the subpart apply to original equipment exhaust systems as well as replacement exhaust systems.

*Subparts D and E*

[Changes related to litigation of other EPA noise emission regulations.]

Parts of other EPA noise regulations have been challenged in court. A case with particular relevance to this final motorcycle noise emissions regulation is *Chrysler Corp. v. EPA* (600 F.2d 904 (D.C. Cir. 1979)). Pursuant to stipulations between the parties to that case, parts of the New Medium and Heavy Trucks Noise Emission Standards involving production verification, selective enforcement auditing, recordkeeping and labeling requirements, and testing by the Administrator were amended (42 FR 61457, December 5, 1977). Where EPA has deemed the changes relevant to this regulation, the changes have been incorporated.

A change to the warranty section of the truck regulation was mandated by the decision in the *Chrysler* case. A similar change to this final regulation is discussed in detail below.

*Sections 205.160 and 205.171 Selective Enforcement Audit (SEA)*

The proposed SEA provisions have been changed in order to decrease the amount of time needed to perform an SEA. The changes also more efficiently accommodate categories and configurations with low production volumes.

Overall, the new SEA procedure requires fewer manufacturer and EPA resources to perform, yet it does not change in any way the risk of SEA failure for the manufacturer.

*Sections 205.157 and 205.168 Production Verification*

A new parameter, "amount of absorption materials," was added. Since the amount of absorption material plays a major part in the noise level of exhaust systems, it was added as a parameter to assure that aftermarket exhaust system manufacturers would consider it when they assemble and rank their test configurations.

*Sections 205.157-2 and 205.168-2 Production Verification Procedures*

Sections 205.157-2(f) and 205.168-2(g) are revised to state that EPA Enforcement Officers or other employees of the Agency may be present to monitor or conduct testing in lieu of the manufacturer. Such observance will be contingent upon the Agency obtaining the manufacturer's consent or valid warrant in the absence of his consent. This change imposes no additional burdens on the manufacturer and is made to allow the Agency more flexibility in the use of its available resources to ensure compliance by all regulated manufacturers with the production verification procedures which are described in the preceding paragraphs of these sections.

*Sections 205.157-4 and 205.168-3 Production Verification Report; Required Data*

Paragraph (b) of each of these sections is revised to require that the production verification report include

for each category and configuration subject to a noise emission standard a sample of a compliance label which is completed with all information required by § 205.158 or § 205.169 as the case may be.

*Sections 205.157–9 and 205.168–10 Production Verification Based on Data from Previous Years*

The proposed carry-over provisions in Subparts D and E have been revised to allow with certain restrictions the manufacturers to have automatic carry-over in subsequent years when the initial production verification noise emission level is at least 2 dB below the applicable standard. However, in any year when a more stringent standard becomes effective, the manufacturers must conduct the required production verification tests for all categories and configurations.

Also, § 205.168–10 has been revised to clarify the fact that a manufacturer who continues in subsequent years to produce replacement exhaust systems for earlier model years of Federally-regulated motorcycles need not conduct production verification tests in those subsequent years unless design changes which reduce the noise attenuating ability of those replacement systems are made.

*Sections 205.162–1 and 205.173–1 Warranty*

The warranty statement in § 205.162–1 has been reserved. The proposed motorcycle warranty was similar to the new medium and heavy truck warranty (40 CFR 205.58–1(a)) which was recently invalidated by the U.S. Court of Appeals for the D.C. Circuit (*Chrysler Corp. v. EPA*, 600 F.2d 904 (D.C. Cir. 1979)). Manufacturers must still submit their proposed warranty provisions to EPA. However, at this time, we are not prescribing the exact wording of the warranty statement. Manufacturers may refer to the alternate warranty statement for trucks as an example of acceptable wording. (See 44 FR 67659, November 27, 1979.)

EPA is preparing a new warranty provision for trucks, buses, and motorcycles to be proposed in the **Federal Register** which will be consistent with the *Chrysler* decision. Comments on the proposal will be solicited and studied before a final warranty provision is published for trucks, buses, and motorcycles.

The proposed warranty language in § 205.173–1 is retained because subsequent manufacturing operations do not usually occur on aftermarket exhaust systems. Therefore, the situation in the *Chrysler* case is not analogous to that of the aftermarket motorcycle exhaust system manufacturers.

## 5.0 Estimated Effects of the Regulation

### 5.1 Health and Welfare

EPA estimates that approximately 93 million people are currently exposed to traffic noise levels equal to or greater than a day-night sound level ($L_{dn}$) of 55 dB. Since motorcycles are a component of the urban noise problem, the Agency assessed the health and welfare benefits associated with this regulation for street motorcycles and off-road motorcycles.

*1. Street Motorcycles*

Two different methods of assessing the current noise impact and impact reductions due to Federal regulation of street motorcycles were studied by the Agency. The reduction in the impact of single event motorcycle pass-bys was assessed, as was the effect of lowered motorcycle noise levels and exhaust modifications on total urban/suburban traffic noise levels and the associated general adverse response.

Assessment of the intrusive nature of motorcycle noise pass-bys led the Agency to a single event activity interference analysis as the most meaningful measure for assessing the health and welfare impact of motorcycle noise. Interference with everyday human activities is very closely related to the dissatisfaction and objection that the public feels towards noise. For example, at the final-step 80 dB regulatory level, the Agency estimates that the extent and severity of interference with human activities attributable to motorcycle noise will be reduced from current levels by 47–75 percent. These figures assume that regulation of replacement exhaust systems will reduce the numbers of exhaust-modified motorcycles from the currently estimated 12 percent of the street motorcycle population (nationwide) to between 3 and 7 percent.

Motorcycl[illegible]unt for less than 2 percent of to[illegible]cular traffic mileage. However, becau[illegible]hey are presently among the noisiest vehicles in the traffic stream, reductions of overall traffic noise levels and associated reductions in the extent and severity of traffic noise impact due to Federal motorcycle noise regulation are greater than what otherwise would be expected. From current levels, with medium and heavy trucks regulated to 80 dB, this regulation of motorcycle noise is expected to reduce the impact from overall traffic noise by 7–11 percent. In the year 2000, with an expected U.S. population of 285 million, this regulation is expected to reduce the number of persons exposed to a day-night level of traffic noise greater than 55 dB from 129 million persons to between 113 and 117 million persons.

*2. Off-Road Motorcycles*

The reductions in the noise impact achieved by Federal regulations for off-road motorcycles are less easily quantified in terms of population impact. This is because the vehicles are used in many areas that are not densely populated. However, it is these same areas where quiet is valued as a national resource, and the sheer aural detectability of a vehicle may create an adverse impact. Nevertheless, reductions in land area and the number of people exposed above the aural detectability level by off-road motorcycle noise can be estimated using an aural detectability criterion and reasonable assumptions about the locations of off-road motorcycle operations. At noise level standards of 82 dB and 80 dB for large and small off-road motorcycles, respectively, the Agency estimates that the number of people exposed to off-road motorcycle noise will be reduced from 3.1 million to approximately 2.3 million persons. This figure assumes a 80 dB regulatory level for street motorcycles which are sometimes used off-road, and a reduction in the proportion of exhaust system modifications from the currently estimated 26 percent of the off-road population to between 8 and 16 percent.

### 5.2 Cost and Economic Impact

Costs of applying noise reduction technology to meet the regulatory levels, and the associated increases in retail prices, vary according to the type and size of the specific motorcycle model. Expected unit purchase price increases at the 80 db regulatory level range from 0.2 percent for street motorcycles with a displacement less than 100 cc, to 4 percent for medium size street motorcycles, to 2 percent for large street motorcycles (average retail price increase). Unit prices of large off-road motorcycles are projected to increase 2 percent at the 82 dB level, while unit price increases of small off-road motorcycles are projected to increase an average of less than one percent at the final-step 80 dB level.

The total annualized cost of the noise emission standards for street and off-road motorcycles is estimated to be approximately $95 million per year. This figure, projected through the year 2010, accounts for increases in retail prices and the increased cost of operating and

maintaining the vehicle due to noise control regulation.

Federal noise standards for replacement exhaust systems are expected to cause retail prices of current quiet systems (meeting California's 83 dB requirement) to rise to levels comparable to those predicted for stock replacement systems for 80 dB motorcyles, or approximately 25 percent more than the average price of current original equipment systems, a $30 price rise. Additionally, over time, a shrinkage of the total market for replacement systems is forecast, provided that such replacement exhaust system manufacturers fully comply with the standards established by these regulations, since styling and performance advantages of many current systems will largely disappear. The total annualized cost of the motorcycle replacement exhaust system standards is estimated to be $3.4 million per year at the final 80 dB level.

The assessed costs and impacts of this regulation will be in addition to those costs and impacts attributed to EPA's motorcycle air emission regulations (42 FR 1122, January 5, 1977). EPA studies, using information supplied by various manufacturers, indicated that the cost of compliance with the air emission standards for 1978 would result in an average retail cost increase of $47 per motorcycle. This cost would be partially offset by an average discounted lifetime fuel savings in maintenance and improved reliability of the product. The average incremental cost increase for 1980 air emission standards was estimated to be $9, which included a small additional improvement in fuel economy. The manufacturers estimated that fuel economy improvements associated with the 1978 emission standards would range as high as 65 percent with an average increase of 20 percent. No significant decrease in sales or shift in market share (between manufacturers) was expected to result from the implementation of that regulation.

Several economic impacts were studied by EPA to determine the possible effects of noise control regulations on the various segments of the motorcycle industry. These impacts are summarized as follows:

*1. Impact of Motorcycle Manufacturers*

A net reduction in motorcycle demand is expected as a result of the noise standards. Forecasting based on historical price-demand relationships indicates that the demand for street and off-road motorcycles combined would be about 2.1 percent below expected demand in the absence of noise regulations. It should be noted, however, that this demand forecast would have resulted in part even in the absence of these Federal rules because of the State motorcycle noise laws planned to take effect. Significant shifts in historic market shares due to Federal noise standards, however, are not expected to occur among the major Japanese motorcycle manufacturers. Their profitability is likewise not expected to be impacted to any large extent since cost increases due to noise control are expected to be passed on to consumers. Although higher retail prices will result in some lost sales, total industry sales in terms of both units and dollars are projected to significantly expand in the next decade.

For AMF/Harley-Davidson to achieve as 80 dB standard, major redesigning of its current large engine types incorporating current engine quieting techniques will be necessary. One attraction of Harley-Davidson motorcycles is a uniquely identifiable exhaust tone that must dominate other subsources to be heard. Engine redesign to meet 80 dB could change tonal characteristics and cause performance penalties that may reduce the demand for Harley-Davidson motorcycles. The economic impact of a 78 dB standard on AMF/Harley-Davidson, the principal domestic manufacturer, would have been manifested primarily in terms of the ability of the firm to manufacture large displacement motorcycles which would conform to EPA standards. Therefore, Harley-Davidson does not consider compliance with a 78 dB regulatory level achievable-with modification to current engine designs. Complete engine redesigns, in addition to major exhaust and intake treatment, would likely have been necessary for Harley-Davidson to meet a 78 dB level.

AMF/Harley-Davidson motorcycles occupy a unique position in the U.S. motorcycle market with a devoted following, and are expected to be relatively insensitive to small price changes. Consequently, if engine designs acceptable to the consumer can be developed which meet the standards, the firm is expected to be able to sell the new designs at little sacrifice in profitability.

The other North American manufacturer of street motorcycles is Canada's Bombardier, Ltd., which manufactures high performance dual purpose motorcycles based on their off-road and competition models. The remaining street motorcycle manufacturers are predominantly European firms which export large displacement models on a limited scale to the United States, although several export a sizable portion of their production to this country. Most of these firms are considered capable of producing motorcycles at the 80 dB regulatory level. Bombardier and some of the European manufacturers may or may not be able to continue exporting street motorcycles to the United States if a 78 dB standard took effect.

Although AMF/Harley-Davidson and several of the other smaller manufacturers are capable of designing motorcycles that will comply with the standards, they argued, in comments to the proposed regulation, that the proposed lead time would make it extremely difficult or impossible for them to produce motorcycles that would meet the noise standards by the effective dates. The Agency carefully evaluated these comments, and extended the effective dates in the final rule, in part to allow these manufacturers more lead time to introduce new motorcycles in parallel with existing products.

Japanese manufacturers of off-road motorcycles are not expected to experience serious technical difficulty producing off-road motorcycles which comply with these noise standards since the quieting technology is well understood. Overcoming weight and horsepower penalties to produce high performance motorcycles, however, will be a challenge. The smaller, predominantly European manufacturers, which often rely on superior performance for marketing advantages, are expected to experience difficulty in maintaining their present market positions at these regulatory levels, due to the considerable impact to the performance of current models. The 82 dB regulatory level for large off-road motorcycles is considered to be technically achieveable for almost all current manufacturers without requiring conversion to four-stroke engines. However, the performance and cost impacts of this level may make it unprofitable for some of the smaller firms to remain in the U.S. market.

Moped-type street motorcycles will be required to meet a 70 dB standard. All mopeds that the Agency tested, which are sold in the U.S., comply with the 70 dB standard. The costs of compliance with this rule for these vehicles are the administrative costs of production verification testing, recordkeeping and labeling, which are expected to be minimal as a result of the anticipated use of the carry-over provision by moped manufacturers.

*2. Impact on Replacement Exhaust System Manufacturers*

The regulations are expected to have a substantial impact on the replacement exhaust system industry. To meet the 80 dB standard, aftermarket replacement exhaust system manufacturers will need to incorporate relatively sophisticated noise attenuation techniques into the design of their mufflers and exhaust systems. Of the more than 150 firms currently in the market, most are small, low volume enterprises devoted exclusively to manufacturing motorcycle exhaust systems, with little or no capability for innovative product design or development. To produce complying systems for post-1980 (regulated) motorcycles, these firms are expected to copy the designs of other manufacturers, a common practice at present. The ten to twenty leading firms in the industry are expected to be able to design and produce their own complying systems, although at similar price and performance penalties associated with replacement systems sold by the original equipment manufacturer (OEM).

The demand for non-OEM exhaust systems is expected to be severely impacted. The price of a typical "4 into 1" or "2 into 1" replacement exhaust system, both OEM and non-OEM, is expected to increase by 20 to 25 percent to meet the 80 dB motorcycle regulatory level. And the differences in styling, performance characteristics, tonal quality, and noise levels between non-OEM and OEM replacement exhaust systems is expected to become less. Since an exhaust system maufacturer's success is very dependent on the special styling, performance, and tonal characteristics, and often high noise level, of his product, the impacts on demand due to changes in these factors are believed to be extremely significant, perhaps more significant than the price change. Based on discussions with aftermarket manufacturers, a 25% reduction in demand for aftermarket exhaust systems is forecast by the year 2000 when regulated motorcycles at the 80 dB level will have replaced most unregulated motorcycles in use.

The adverse impact of the regulations on aftermarket manufacturers will be gradual since the standards are phased in over a five-year period and since firms can continue to produce systems for motorcycles manufactured prior to the applicability of each noise standard. However, in the longer term, as unregulated motorcycles are gradually scrapped, and as the demand for complying non-OEM systems falls, many of the small volume manufacturers are likely to switch to alternate product lines, or go out of business. While the revenues of the ten to twenty leading firms are expected to also decrease as a result of this regulation, these larger firms are expected to continue manufacturing replacement exhaust systems. In fact, although a net shrinkage in the replacement exhaust system is forecast, these larger firms may actually experience increased sales as other manufacturers exit from the market. This adverse impact on aftermarket manufacturers is not projected on the basis of technical incapability or the cost of compliance testing which is a small fraction of total price increase. Rather, these impacts are expected to result as the special characteristics of increased performance, gutteral tone, higher noise level, and styling provided by non-complying exhaust systems on which sales are substantially dependent are partially eliminated by the requirement to produce quiet exhaust systems.

The expected impacts are based upon the implementation of a successful national Federal enforcement program along with complementary enforcement programs by some state and local jurisdictions to identify manufacturers who continue to sell loud non-complying exhaust systems for regulated motorcycles (discussed in section 3.7).

To minimize the burden posed by the compliance testing requirements, the Agency will provide technical assistance to small manufacturers in the testing and certification of their exhaust systems with all provisions of the regulation. The Agency will also actively support manufacturers in their sharing of test facilities for compliance demonstration.

*3. Impact on Foreign Trade*

Since motorcycles comprise substantially less than 1 percent of total U.S. foreign trade with Europe and North America, the impact of a Federal motorcycle noise regulation on the balance of trade with these areas is expected to be negligible. Motorcycles currently account for some 15 percent of the approximately $10 billion in annual imports from Japan. EPA does not, however, anticipate any substantial changes in net revenue to Japanese motorcycle manufacturers resulting from these noise standards, and thus no appreciable change in the U.S.-Japan balance of trade is forecast.

*4. Impact on Exports*

The small percentage of AMF/Harley-Davidson's domestic motorcycle production that is currently exported is not expected to change significantly as a result of noise regulations.

*5. Impact on Employment*

If demand reduction forecasts based on historical relationship are applicable, eventual reductions in current U.S. motorcycle industry employment resulting from the final Federal noise standards could be approximately 1,760 positions from future levels in the absence of noise regulations. This impact would occur at least in part in the absence of Federal regulations because of the more stringent State regulations that would otherwise go into effect. However, projected growth in the industry is expected to more than compensate for any employment losses that do occur.

If these standards prevent AMF/Harley-Davidson from being able to remain in the market, its 3,300 motorcycle-related jobs in Milwaukee, Wis. and York, Pa. would be affected. However, as is discussed earlier, EPA does not expect these regulations to force Harley-Davidson out of the market. The aftermarket exhaust system industry is the only segment of the total industry predicted to experience an actual net decline in employment, possibly impacting some 500 positions, assuming compliance with these standards.

*6. Impact on Gross National Product*

The proposed regulations are not expected to have nay consequential effect either direct or indirectly, on the U.S. Gross National Product (GNP).

*7. Impact on Energy Consumption*

Additional weight and increased backpressure due to noise suppression components are expected to negatively impact motorcycle fuel economy by an estimated 2 percent. The average fuel consumption of current street motorcycles is 47 m.p.g. Off-road motorcycles are estimated to currently have an average fuel consumption of 60 m.p.g. Based on an average of 2300 miles per year for street motorcycles, and 1200 miles per year for off-road motorcycles, increased fuel consumption of about one gallon per year for street motorcycles and less that one gallon per year for off-road motorcycles is expected. By the year 2000, when the majority of motorcycles in use will have been manufacturered to comply with the 80 dB standard, the current population of motorcycles is projected to have more than doubled to approximately 16 million vehicles. The fuel penalty translates to about 15 million gallons of gasoline in the year 2000, or one-half million barrels of crude oil, which would represent less than one-tenth of one

percent of the total U.S consumption of crude oil at that time.

**6.0 Enforcement**

The enforcement strategy encompasses both time of sale and in-use compliance requirements.

*1. Time of Sale Requirements*

Manufacturers of new motorcycles and new replacement exhaust systems must produce products which comply with the standard at the time of their distribution in commerce. The process of testing these products is called production verification (PV). Manufacturers performing PV must report the test results to EPA to demonstrate compliance.

Production verification is required yearly of all manufacturers. However, manufacturers may apply to EPA for carry-over of the prior year's PV to a new year. EPA's decision to allow or not allow carry-over will be based on the standard for that year, number and level of PV and quality control tests reported to EPA, changes made in the design and construction of the units from the prior year, and other information acquired by or provided to EPA and relevant to the overall industry, the particular manufacturer, and the subject product. Particularly in the case of the moped noise emission standard, the Agency anticipates that it may be possible to approve many of the carry-over requests from manufacturers since information available to the Agency shows that mopeds are, in general, well below the standard.

The Selective Enforcement Audit (SEA) provisions of this regulation are intended to provide EPA with an additional tool to verify manufacturers' compliance by requiring manufacturers to test or to allow EPA to test a sample of vehicles or exhaust systems of a certain category or configuration. If a manufacturer fails an SEA, EPA may take corrective action such as ordering the manufacturer to cease distribution of that product or to recall those products determined not to be in compliance.

The SEA procedures have been revised such that SEA's can be completed more quickly and with less burden on manufacturers and EPA. EPA does not expect any additional burden on manufactures from this change to the regulation.

*2. In-Use Requirements*

The warranty provisions are intended to provide consumers with a remedy if products purchased by them do not meet the applicable standard at the time of sale. Part of the warranty provisions for this final rule was reserved, in response to a U.S. Court of Appeals decision. For a more complete discussion on this topic, refer to Section 4 of this preamble.

The in-use provisions containing the requirement that a tampering warning and maintenance instructions be provided to the purchaser remain unchanged from those proposed. These provisions provide additional assurance that the products will remain quiet during use.

*3. Civil Penalty Policy*

Under Sections 10(a) and 11(a) of the Noise Control Act, as amended, a manufacturer who distributes in commerce any new product after the effective date of an applicable regulation prescribed under Section 6, other than in conformity with that regulation, is subject to civil or criminal penalties. Civil penalties under Section 11(a)(2) shall not exceed $10,000 per day of violation. The EPA is adopting a Civil Penalty Policy for assessment of judicial civil penalties for violations of regulations promulgated under Section 6 and Section 8. A notice of this policy is planned to be published in the **Federal Register** in the near future.

It had been EPA's experience with other noise emission regulations that the overwhelming majority of manufacturers subject to those regulations have complied with applicable noise emission standards. The Civil Penalty Policy is designed to encourage continued compliance and to deter violations by ensuring that appropriate penalties will be sought in cases of violation and by seeking to require the manufacturer to achieve compliance as quickly as possible.

The Civil Penalty Policy does not limit the authority of the Administrator to take administrative action under Section 11(d) of the Act to protect the public health and welfare. EPA will also seek injunctions or pursue other remedies, as appropriate, to assure full compliance with the regulations promulgated under the Noise Control Act. Payment of a civil penalty will in no case excuse a violator or substitute for other available remedies which the Administrator, in exercising his authority under Section 11(d), or the courts, in exercising their authority under Sections 11(a)(1) and 11(c), determine to be necessary to protect the public health or to restrain violations.

**7.0 Preemption**

Under Subsection 6(e)(1) of the Noise Control Act, after the effective date of a Federal regulation limiting noise emissions from a new product, no state or political subdivision may adopt or enforce any law or regulation which sets a limit on noise emissions from such new product, or components of such new product, which is not identical to the standard prescribed by the Federal regulation. Subsection 6(e)(2), however, provides that nothing in Section 6 precludes or denies the right of any state or political subdivision to establish and enforce control on environmental noise (or one or more sources thereof) through the licensing, regulation or restriction of the use, operation or movement of any product or combination of products.

The noise controls which are reserved to state and local authority by Section 6(e)(2) include, but are not limited to, the following:

1. Controls on the manner of operation of products.
2. Controls on the time of day or night in which products may be operated.
3. Controls on the places in which products may be operated.
4. Controls on the number of products which may be operated together.
5. Controls on noise emissions from the property on which products are used.
6. Controls on the licensing of products.
7. Controls on environmental noise level.

EPA stronly encourages state and local authorities to adopt and enforce laws and ordinances which complement this Federal motorcycle noise rulemaking. The Agency specifically urges in-use noise regulations which are consistent with reasonable operation of Federally-regulated vehicles. Restrictions on the registration of off-road motorcycles for highway operations are also encouraged, as are vehicle inspection programs which involve either stationary sound level testing or visual inspection of motorcycle exhaust systems.

**8.0 Future Intent**

EPA is pursuing a strategy through which products that are major contributors to overall environmental noise will be identified and subsequently controlled. This coordinated approach is necessary because a number of different noise sources may be operating in residential neighborhoods at the same time, and the quieting of only one such source may not in itself be sufficient to reduce the environmental noise to a level the Agency believes is requisite to protect the public health and welfare.

As indicated in the first EPA Report on Identification of Major Sources of Noise (39 FR 22297–99, June 21, 1974), the principal candidates for potential future regulatory efforts are known.

Surface tranportation noise is considered by EPA as one of the major contributors to environmental noise levels on a national basis. To further reduce this major national noise source, the Agency intends to continue its investigations pursuant to noise regulatory actions for other surface transportation vehicles. Consequently, the levels specified for the standard in this rulemaking are consistent with the Agency's objective of ultimately reducing the total noise emitted from all surface tranportation vehicles.

The Agency also plans further regulatory action on other noise sources. These include wheel and crawler tractors, pavement breakers and rock drills, and lawnmowers.

EPA believes that the motorcycle standards are necessary to protect the public health and welfare and are achievable through use of best available technology, taking into account the cost of compliance. However, as technological advances occur, lower levels may be achievable. EPA will consider all new information and data which become available or are presented to it, and may subsequently revise this regulation. The Agency, however, has no current plans to further lower the noise standards for motorcycles and does not foresee doing so in the near future.

### 9.0 Reporting and Recordkeeping Requirements

The reporting and recordkeeping requirements of this regulation are detailed in §§ 205.161 and 205.172.

Under the EPA's new "sunset" policy for reporting requirements in regulations, the reporting requirements in this regulation will automatically expire five years after implementation of the January 1, 1986 standard unless the Administrator extends them. This provision is prescribed in §§ 205.161(c) and 205.172(c).

### 10.0 Evaluation Plan

EPA intends to review the effectiveness and need for continuation of the provisions contained in this action no more than five years after the effective date of the final step standard of this regulation. In particular, the Agency will solicit comments from affected parties with regard to actual costs incurred and other burdens associated with compliance and will also review noise data to evaluate the effectiveness of the regulation after it has gone into effect.

### 11.0 Supporting Information

EPA has determined that promulgation of this regulation constitutes a significant action. Accordingly, the Agency has prepared the Regulatory Analysis required by Executive Order 12044. This analysis is entitled "Regulatory Analysis of the Noise Emission Regulation for Motorcycles and Motorcycle Exhaust Systems," EPA 550/9–80–217. Included with this Regulatory Analysis is an Environmental Impact Statement which presents the effects of the regulation. These documents may be obtained from Mr. Charles Mooney, U.S. Environmental Protection Agency, EPA Public Information Center (PM–215), Room 2194 D, 401 M Street SW., Washington, D.C. 20460.

This regulation is promulgated under the authority of Sections 6, 10, 11, 13, and 15 of the Noise Control Act. (Pub. L. 92–574, 86 Stat. 1237, 1242, 1244, and 1245 (42 U.S.C. 4905, 4909, 4910, 4912, and 4914)).

Dated: December 19, 1980.

**Douglas M. Costle,**

*Administrator.*

## PART 205—TRANSPORTATION EQUIPMENT NOISE

In consideration of the foregoing, 40 CFR Part 205 is amended by adding Subparts D and E as follows:

### Subpart D—Motorcycles

Sec.


205.150 Applicability.
205.151 Definitions.
205.152 Noise emission standards.
205.153 Engine displacement.
205.154 Consideration of alternative test procedures.
205.155 Motorcycle class and manufacturer abbreviation.
205.156 [Reserved]
205.157 Production verification.
205.157–1 General requirements.
205.157–2 Production verification procedures.
205.157–3 Configuration identification.
205.157–4 Production verification report; required data.
205.157–5 Test vehicle selection.
205.157–6 Test preparation.
205.157–7 Testing.
205.157–8 Changes to, addition of and deviation from a vehicle configuration during the model year.
205.157–9 Production verification based on data from previous model years.
205.157–10 Order to cease distribution.
205.158 Labeling requirements.
205.159 Testing by the Administrator.
205.160 Selective enforcement auditing (SEA) requirements.
205.160–1 Test request.
205.160–2 Test sample selection.
205.160–3 Test sample preparation.
205.160–4 Testing procedures.
205.160–5 Reporting of the test results.
205.160–6 Passing or failing under SEA.
205.160–7 Continued testing.
205.160–8 Prohibition of distribution in commerce; manufacturer's remedy.
205.161 Maintenance of records; submittal of information.
205.162 In-use requirements.
205.162–1 Warranty.
205.162–2 Tampering.
205.162–3 Instructions for maintenance, use, and repair.
205.162–4 Rentention of durability records.
205.163 Recall of noncomplying motorcycles; relabeling of mislabeled motorcycles.


**Authority:** Sec. 6 of the Noise Control Act (42 U.S.C. 4905) and additional authority as specified.

### Subpart E—Motorcycle Exhaust Systems.


205.164 Applicability.
205.165 Definitions.
205.166 Noise emission standards.
205.167 Consideration of alternative test procedures.
205.168 Production verification.
205.168–1 General requirements.
205.168–2 Production verification procedures.
205.168–3 Production verification report; required data.
205.168–4 Test exhaust system selection.
205.168–5 Test exhaust system preparation.
205.168–6 Test motorcycle selection.
205.168–7 Test motorcycle preparation.
205.168–8 Testing.
205.168–9 Changes to, addition of, and deviation from an exhaust system category or motorcycle class during the model year.
205.168–10 Production verification based on data from previous model years.
205.168–11 Order to cease distribution.
205.169 Labeling requirements.
205.170 Testing by the Administrator.
205.171 Selective enforcement auditing (SEA) requirements.
205.171–1 Test request.
205.171–2 Test exhaust system sample selection.
205.171–3 Test motorcycle sample selection.
205.171–4 Test exhaust system preparation.
205.171–5 Test motorcycle preparation.
205.171–6 Test procedures.
205.171–7 Reporting of the test results.
205.171–8 Passing or failing under SEA.
205.171–9 Continued testing.
205.171–10 Prohibition on distribution in commerce; manufacturer's remedy.
205.172 Maintenance of records; submittal of information.
205.173 In-use requirements.
205.173–1 Warranty.
205.173–2 Tampering.
205.173–3 Warning statement.
205.173–4 Information sheet.
205.173–5 Retention of durability records.
205.174 Remedial orders.
Appendix I Motorcycle Noise Emission Test Procedure
Appendix I–1 Test Procedure for Street and Off-road Motorcycles
Appendix I–2 Test Procedure for Street Motorcycles That Meet the Definition of § 205.151(a)(2)(ii) (Moped-type street motorcycles)
Appendix II Sampling Tables

Authority: Sec. 6 of the Noise Control Act (42 U.S.C. 4905) and additional authority as specified.

## Subpart D—Motorcycles

### § 205.150 Applicability.

(a) Except as otherwise provided in these regulations, the provisions of this subpart apply to 1983 and subsequent model year motorcycles manufactured after December 31, 1982, which meet the definition of "new product" in the Act.

(b) The provisions of this subpart do not apply to electric or battery-powered motorcycles.

(c) Except as provided in § 205.158, the provisions of this subpart do not apply to competition motorcycles as defined in § 205.151(a)(3).

### § 205.151 Definitions.

(a) As used in this subpart and in Subpart E, all terms not defined herein shall have the meaning given them in the Act or in Subpart A of this part.

(1) "Motorcycle" means any motor vehicle, other than a tractor, that:

(i) Has two or three wheels;

(ii) Has a curb mass less than or equal to 680 kg (1499 lb); and

(iii) Is capable, with an 80 kg (176 lb) driver, of achieving a maximum speed of at least 24 km/h (15 mph) over a level paved surface.

(2) "Street motorcycle" means:

(i) Any motorcycle that:

(A) With an 80 kg (176 lb) driver, is capable of achieving a maximum speed of at least 40 km/h (25 mph) over a level paved surface; and

(B) Is equipped with features customarily associated with practical street or highway use, such features including but not limited to any of the following: stoplight, horn, rear view mirror, turn signals: or

(ii) Any motorcycle that:

(A) Has an engine displacement less than 50 cubic centimeters;

(B) Produces no more than two brake horse power;

(C) With a 80 kg (176 lb) driver, cannot exceed 48 km/h (30 mph) over a level paved surface.

(3) "Competition motorcycle" means any motorcycle designed and marketed solely for use in closed course competition events.

(4) "Off-road motorcycle" means any motorcycle that is not a street motorcycle or competition motorcycle.

(5) "Acceleration test procedure" means the measurement methodologies specified in Appendix I.

(6) "Acceptable quality level" (AQL) means the maximum allowable average percentage of vehicles or exhaust systems that can fail sampling inspection under a Selective Enforcement Audit.

(7) "Acoustical Assurance Period" (AAP) means a specified period of time or miles driven after sale to the ultimate purchaser during which a newly manufactured vehicle or exhaust system, properly used and maintained, must continue in compliance with the Federal standard.

(8) "Advertised Engine Displacement" means the rounded off volumetric engine capacity used for marketing purposes by the motorcycle manufacturer.

(9) "Category" means a group of vehicle configurations which are identical in all material aspects with respect to the parameters listed in § 205.157–2 of this subpart.

(10) "Class" means a group of vehicles which are identical in all material aspects with respect to the parameters listed in § 205.155 of this subpart.

(11) "Closed course competition event" means any organized competition event covering an enclosed, repeated or confined route intended for easy viewing of the entire route by all spectators. Such events include short track, dirt track, drag race, speedway, hillclimb, ice race, and the Bonneville Speed Trials.

(12) "Closing rpm" means the engine speed in Figure 2 of Appendix I.

(13) "Configuration" means the basic classification unit of a manufacturer's product line and is comprised of all vehicle designs, models or series which are identical in all material aspects with respect to the parameters listed in § 205.157–3 of this subpart.

(14) "Engine displacement" means volumetric engine capacity as defined in § 205.153.

(15) "Exhaust system" means the combination of components which provides for the enclosed flow of exhaust gas from the engine exhaust port to the atmosphere. "Exhaust system" further means any constituent components of the combination which conduct exhaust gases and which are sold as separate products. "Exhaust System" does not mean any of the constituent components of the combination, alone, which do not conduct exhaust gases, such as brackets and other mounting hardware.

(16) "Failing vehicle" means a vehicle whose noise level is in excess of the applicable standard.

(17) "Maximum rated RPM" means the engine speed measured in revolutions per minute (RPM) at which peak net brake power (SAE J–245) is developed for motorcycles of a given configuration.

(18) "Model specific code" means the designation used for labeling purposes in §§ 205.158 and 205.169 for identifying the motorcycle manufacturer, class, and "advertised engine displacement," respectively.

(19) "Model year" means the manufacturer's annual production period, which includes January 1 of any calendar year, or if the manufacturer has no annual production period, the term "model year" shall mean the calendar year.

(20) "Motorcycle noise level" means the A-weighted noise level of a motorcycle as measured by the acceleration test procedure.

(21) "Noise control system" means any vehicle part, component or system, the purpose of which includes control or the reduction of noise emitted from a vehicle, including all exhaust system components.

(22) "Noise emission standard" means the noise levels in § 205.152 or § 205.166.

(23) "Noise emission test" means a test conducted pursuant to a measurement methodology specified in this subpart.

(24) "Production verification vehicle" means any vehicle selected for testing, tested or verified according to the production verification requirements delineated in this subpart.

(25) "Serial number" means the identification number assigned by the manufacturer to a specific production unit.

(26) "Tampering" means the removal or rendering inoperative by any person, other than for purposes of maintenance, repair, or replacement, of any device or element of design incorporated into any product in compliance with regulations under Section 6, prior to its sale or delivery to the ultimate purchaser or while it is in use; or the use of a product after such device or element of design has been removed or rendered inoperative by any person.

(27) "Test vehicle" means a vehicle in a Selective Enforcement Audit test sample or a production verification vehicle.

(28) "Tractor" means for the purposes of this subpart, any two or three wheeled vehicle used exclusively for agricultural purposes, or for snow plowing, including self-propelled machines used exclusively in growing, harvesting or handling farm produce.

(29) "Vehicle" means any motorcycle regulated pursuant to this subpart.

(30) "Warranty" means the warranty required by Section 6(d)(1) of the Act.

### § 205.152 Noise emission standards.

(a) *Noise emission standards.* (1) Street motorcycles of the following and subsequent model years must not produce noise emissions in excess of the levels indicated:

(i) Street motorcycles other than those that meet the definition of § 205.151(a)(2)(ii):

| | A-weighted noise level (dB) |
|---|---|
| Model Year: | |
| (A) 1983 | 83 |
| (B) 1986 | 80 |

(ii) Street motorcycles that meet the definition of § 205.151(a)(2)(ii) (moped-type street motorcycles):

| | A-weighted noise level (dB) |
|---|---|
| Model Year: | |
| (A) 1983 | 70 |

(2) Off-road motorcycles of the following and subsequent model years must not produce noise emissions in excess of the levels indicated:

(i) Off-road motorcycles with engine displacements of 170 cc and lower:

| Motorcycle model year | A-weighted noise level (dB) |
|---|---|
| (A) 1983 | 83 |
| (B) 1986 | 80 |

(ii) Systems designed and marketed for use on off-road motorcycles with

| | A-weighted noise level (dB) |
|---|---|
| Model Year: | |
| (A) 1983 | 86 |
| (B) 1986 | 82 |

(3) Street motorcycles must be designed, built and equipped so that, when properly maintained and used, they will not produce noise emissions in excess of the levels specified in paragraph (a)(1) of this section, for an Acoustical Assurance Period of one year or a distance of 6000 km (3730 mi) after the time of sale to the ultimate purchaser, whichever occurs first.

(4) Off-road motorcycles must be designed, built and equipped so that, when properly maintained and used, they will not produce noise emissions in excess of the levels specified in paragraph (a)(2), of this section, for an Acoustical Assurance Period of one year or a distance of 3000 km (1865 mi) after the time of sale to the ultimate purchaser, whichever occurs first.

(5) At the time of sale to the ultimate purchaser, all products must comply with the standards set forth in paragraphs (a) (1) and (2) of this section.

(b) *Measurement procedure.* (1) The standards set forth in paragraph (a) of this section refer to noise emissions as measured in accordance with the measurement methodology specified in Appendix I–1 for all motorcycles except those street motorcycles that meet the definition of § 205.151(a)(2)(ii).

(2) The standards set forth in paragraph (a) of this section for street motorcycles that meet the definition of § 205.151(a)(2)(ii) (moped-type street motorcycles) refer to noise emissions measured in accordance with the measurement methodology specified in Appendix I–2.

(c) *Low noise emission product standard.* For the purpose of Low-Noise-Emission Product certification pursuant to 40 CFR Part 203, motorcycles procured by the Federal government after the following dates must not produce noise emissions in excess of the noise levels indicated:

(1) For street motorcycles with engine displacement greater than 170 cc:

| Motorcycle model year | A-weighted noise level (dB) |
|---|---|
| Date: | |
| (i) January 1, 1982 | 73 |
| (ii) January 1, 1989 | 71 |

(2) For off-road motorcycles with engine displacements greater than 170 cc:

| Motorcycle model year | A-weighted noise level (dB) |
|---|---|
| Date: | |
| (i) January 1, 1982 | 75 |

(3) For off-road motorcycles with engine displacement 170 cc and lower and street motorcycles with engine displacement 170 cc and lower that do not meet the definition of § 205.151(a)(2)(ii):

| Motorcycle model year | A-weighted noise level (dB) |
|---|---|
| Date: | |
| (i) January 1, 1982 | 71 |

(4) For street motorcycles that meet the definition of § 205.151(a)(2)(ii) (moped-type street motorcycles):

| Motorcycle model year | A-weighted noise level (dB) |
|---|---|
| Date: | |
| (i) January 1, 1982 | 60 |

These levels refer to noise emissions as measured in accordance with the measurement methodologies specified in Appendix I. LNEP's must also meet all requirements contained in paragraphs (a) (3), (4), and (5), of this section.

(Secs. 10 and 15 of the Noise Control Act, (42 U.S.C. 4909, 4914))

**§ 205.153 Engine displacement.**

(a) Engine displacement must be calculated using nominal engine values and rounded to the nearest whole cubic centimeter, in accordance with American Society for Testing Materials (ASTM) E 29–67.

(b) For rotary engines, displacement means the maximum volume of a combustion chamber between two rotor tip seals minus the minimum volume of that combustion chamber between those two rotor seals times three times the number of rotors.

cc = (Maximum chamber volume − minimum chamber volume) × 3 × number of rotors.

**§ 205.154 Consideration of alternative test procedures.**

The Administrator may approve applications from manufacturers of motorcycles for the approval of test procedures which differ from those contained in this subpart so long as the alternative procedures have been demonstrated to correlate with the prescribed procedure. To be acceptable, alternative test procedures must be such that the test results obtained will identify all those test motorcycles which would not comply with the noise emission standards prescribed in § 205.152 when tested in accordance with the measurement methodology specified in Appendix I. After approval by the Administrator, testing conducted by manufacturers using alternative test procedures will be accepted by the Administrator for all purposes including, but not limited to, production verification testing, and selective enforcement audit testing.

**§ 205.155 Motorcycle class and manufacturer abbreviation.**

(a) Motorcycles must be grouped into classes determined by separate combinations of the following parameters:

(1) Engine type:

(i) Gasoline—two stroke.

(ii) Gasoline—four stroke.

(iii) Gasoline—rotary.

(iv) Other.

(2) Engine displacement.

(3) Engine configuration:

(i) Number of cylinders.

(ii) Cylinder arrangement (i.e., in line, opposed, etc.)

(4) Exhaust system:

(i) Muffler: (A) Type, (B) Location, (C) Number.

(ii) Expansion chambers: (A) Location, (B) Size.

(iii) Spark arrestors.

(iv) Other exhaust system components.

(Sec. 13 of the Noise Control Act (42 U.S.C. 4912))

**§ 205.156 [Reserved]**

**§ 205.157 Production verification (PV).**

**§ 205.157-1 General Requirements.**

(a) Each manufacturer of vehicles manufactured for distribution in commerce in the United States which are subject to the standards prescribed in this subpart and not exempted in accordance with Subpart A, § 205.5:

(1) Must verify each vehicle in accordance with the production verification procedures described in this subpart;

(2) Must submit a product verification report, as required by § 205.157-4 of this subpart;

(3) Must label each vehicle in accordance with the requirements of § 205.158 of this subpart; and

(4) Must ensure that each vehicle conforms to the applicable noise emission standard establishd in § 205.152 of this subpart.

(b) The requirements of paragraph (a) of this section apply to new products which conform to the definition of vehicles in these regulations and at the time such new products are assembled to that state of completeness in which the manufacturer sends them to a subsequent manufacturer or otherwise distributes them in commerce.

(c) A subsequent manufacturer of a new vehicle need not fulfill the requirements of paragraphs (a) (1), (2) or (3) of this section where such requirements have already been complied with by a prior manufacturer.

(d) The manufacturer who is required to conduct product verification testing to demonstrate compliance with a particular standard, must satisfy all other provisions of this subpart applicable to that standard, including but not limited to, record keeping, reporting and in-use requirements.

(Secs. 10 and 13 of the Noise Control Act (42 U.S.C. 4909 and 4912))

**§ 205.157-2 Production verification procedures.**

(a)(1) Prior to distribution in commerce of vehicles of a specific configuration, the first manufacturer of the vehicles shall verify the configuration in accordance with this subpart.

(2) Notwithstanding paragraph (a)(1) of this section, the manufacturer may distribute in commerce vehicles of that configuration for up to 90 days if weather or other conditions beyond the control of the manufacturer make production verification of a configuration impossible and if the following conditions are met:

(i) The manufacturer performs the tests required under paragraphs (b) or (c) of this section on such configuration as soon as conditions permit;

(ii) The manufacturer maintains records of the conditions which make production verification impossible; and

(iii) If on the 45th day following distribution in commerce of vehicles of that configuration, the manufacturer has not performed the tests required by paragraphs (b) or (c) of this section, the manufacturer within 5 days notifies the Administrator in writing that such vehicles have been distributed in commerce and provides to the Administrator documentation of the conditions which have made production verification impossible.

(3) At any time following receipt of notice under paragraph (a)(2)(iii) of this section with respect to a configuration, the Administrator may require that the manufacturer ship test vehicles to an EPA test facility for the required production verification testing.

(b) The production verification requirements with regard to each vehicle configuration consist of:

(1) Testing in accordance with § 205.157-7 of a vehicle selected in accordance with § 205.157-5;

(2) Compliance of the test vehicle with the applicable standard, when tested in accordance with Appendix I; and

(3) Submission of a production verification report pursuant to § 205.157-4.

(c)(1) In lieu of testing vehicles of every configuration as described in paragraph (b) of this section, the manufacturer may elect to verify the configuration based on representative testing. The requirements of representative testing are:

(i) Grouping configurations into categories where each category is determined by a separate combination of at least the following parameters (a manufacturer may use more parameters):

(A) Engine type: (*1*) Gasoline-two stroke; (*2*) gasoline-four stroke; (*3*) gasoline-rotary; and (*4*) other.

(B) Engine displacement.

(C) Engine configuration: (*1*) Number of cylinders; and (2) cylinder arrangement (i.e., in line, opposed, etc.)

(ii) Identifying the configuration within each category which emits the highest A-weighted sound level (in dB).

(iii) Testing in accordance with Appendix I of a vehicle of the configuration identified pursuant to paragraph (c)(1)(ii) of this section selected in accordance with § 205.157-5.

(iv) Demonstrating compliance of that vehicle with the applicable standard when tested in accordance with the test procedure specified in Appendix I; and

(v) Submission of a production verification report pursuant to § 205.157-4.

(2) If there has been compliance with the requirements of paragraph (c)(1), of this section, all those configurations contained within a category are considered to be represented by the tested vehicle and are considered to be production verified.

(3) If there has been compliance with all other requirements of paragraph (c)(1) of this section, except that the manufacturer tests a configuration which does not have the highest noise level in a category (as identified in paragraph (c)(1)(ii) of this section), all those configurations in the category which have noise levels no greater than that of the tested configuration are considered to be production verified. However a manufacturer must production verify according to the requirements of paragraphs (b) or (c) of this section any configurations in the category which have a higher noise level than that of the configuration tested.

(d) A manufacturer may elect to production verify all or part of his product line using representative testing pursuant to paragraph (c) of this section.

(e) The manufacturer has the following alternatives if any test vehicle is determined to not be in compliance with applicable standards:

(1) Delete the configuration from which the test vehicle was selected from the production verification report. Configurations so deleted may be included in a later report under § 205.157-4. However, in the case of representative testing, a new test

vehicle from another configuration must be selected and production verified according to the requirements of paragraph (c) of this section, in order to production verify the other configurations in that category originally represented by the vehicle that did not comply; or

(2) Modify the test vehicle and demonstrate by testing that it meets applicable standards. All modifications and test results must be reported in the production verification report. The manufacturer must modify all production vehicles of the same configuration in the same manner as the test vehicle before distribution into commerce.

(f) Upon request by the Director of the Noise and Radiation Enforcement Division, the manufacturer shall notify the Director of any production verification testing scheduled by the manufacturer pursuant to this section so that EPA Enforcement Officers or other employees of the Agency may be present to monitor or conduct the testing in lieu of the manufacturer.

(Secs. 10 and 13 of the Noise Control Act (42 U.S.C. 4909, 4912))

**§ 205.157–3 Configuration identification**

(a) A separate vehicle configuration shall be determined by each combination of the following parameters:

(1) Exhaust system (engine): (i) Mufflers; (ii) expansion chambers; (iii) spark arrestors; and (iv) other exhaust system components.

(2) Air induction system (engine): (i) Intake muffler; (ii) intake ducting; and (iii) air cleaner element.

(3) Vehicle drive train: (i) Chain; and (ii) shaft.

(4) Transmission gear ratio: (i) Standard transmission; and (ii) automatic transmission.

(5) Cooling system configuration: (i) Natural air cooled; (ii) liquid cooled; and (iii) forced air cooled.

(6) Category parameters listed in § 205.157–2.

(b) [Reserved]

(Sec. 13 of the Noise Control Act (42 U.S.C. 4912))

**§ 205.157–4 Production verification report; required data.**

(a) Before the distribution in commerce of any product to which this regulation applies, the manufacturer must submit a production verification report to the Director, Noise and Radiation Enforcement Division (EN–387), U.S. Environmental Protection Agency, Washington, D.C. 20460.

(b) The report must be signed by an authorized representative of the manufacturer and must include the following:

(1) The name, location, and description of the manufacturer's noise emission test facilities which meet the specifications of Appendix I and are used to conduct testing pursuant to this subpart. A test facility that has been described in a previous submission under this subpart need not be described again, but must be identified as such.

(2) A description of normal predelivery maintenance procedure.

(3) A description of all vehicle configurations, including the model specific code applicable for each configuration, as determined in accordance with § 205.158, to be distributed in commerce by the manufacturer. This description must include a list identifying or defining any device or element of design (including its location and method of operation) incorporated into vehicles for the purpose of noise control and any device that affects noise emission from the vehicle and does not operate during the normal operating modes of the vehicle. The manufacturer may satisfy the vehicle configuration description requirements of this paragraph by submitting as part of the production verification report a copy of sales literature that describes the product line including options and supplementing this literature with any additional information necessary to fulfill the requirements of this paragraph. If a manufacturer elects to production verify pursuant to § 205.157–2(c), the configuration within each category which is estimated to have the highest A-weighted noise level at the end of the Acoustical Assurance Period must be identified. The manufacturer may estimate the noise level based on his best technical judgment, test data, or both. The criteria used to estimate each noise level must be stated with the estimates.

(4) The following information for each noise emission test conducted:

(i) The individual record for the test vehicles required by § 205.161(a)(2) for all official tests conducted in accordance with § 205.157–7 including, for each invalid test, the reason for invalidation.

(ii) A complete description of any preparation, maintenance or testing which could affect the noise emissions of the vehicle, and which was performed on the test vehicle but will not be performed on all other production vehicles, and

(iii) The reason for replacement where a replacement vehicle was necessary, and test results, if any, for replaced vehicles.

(5) A complete description of the sound data acquisition system if other than those specified in Appendix I.

(6) For each configuration a sample of *the completed label which is required* under § 205.158 of this Subpart. The label must be completed in accordance with § 205.158(a)(5).

(7) The following statement and endorsement:

"This report is submitted pursuant to Section 6 and Section 13 of the Noise Control Act of 1972. To the best of (company name) knowledge, all testing for which data are reported here was conducted in strict conformance with applicable regulations under 40 CFR Parts 205 *et seq.*, all the data reported here are a true and accurate representation of such testing and all other information reported here is true and accurate. I am aware of the penalties associated with violations of the Noise Control Act of 1972 and the regulations thereunder. (authorized representative)."

(c) Where a manufacturer elects to submit separate production verification reports for portions of his product line as provided in paragraph (a) of this section, information provided in previous reports need not be resubmitted. Information necessary to update or make current previously submitted information must be submitted.

(d) Any change with respect to information reported under this section must be reported as soon as the information becomes available.

(Secs. 10 and 13 of the Noise Control Act (42 U.S.C. 4909 and 4912))

**§ 205.157–5 Test vehicle selection.**

Test vehicles of a configuration for which production verification testing is required by § 205.157–1 must be assembled using the manufacturer's normal production processes and intended for distribution in commerce.

(Secs. 10, 13 of the Noise Control Act (42 U.S.C. 4909, 4912))

**§ 205.157–6 Test preparation.**

(a) Before the official test, the test vehicle selected in accordance with § 205.157–5 must not be prepared, tested, modified, adjusted, or maintained in any manner unless such preparation, tests, modifications, adjustments or maintenance (1) are part of the manufacturer's prescribed manufacturing and inspection procedures, and are documented in the manufacturer's internal vehicle assembly and inspection procedures, (2) are required or permitted under this

subpart, or (3) are approved in advance by the Administrator.

(b) For purposes of this section and § 205.157-5, prescribed manufacturing and inspection procedures include quality control testing and assembly procedures normally performed by the manufacturer on like products during early production if the resulting testing is not biased by this procedure. In the case of imported products, the manufacturer may perform adjustments, preparations, modification or tests normally performed at the port of entry by the manufacturer to prepare the vehicle for delivery to a dealer or customer.

(c) Equipment or fixtures necessary to conduct the test may be installed on the vehicle if such equipment or fixtures have no effect on the noise emissions of the vehicle, as determined by the measurement methodology.

(d) In the event of a vehicle malfuction (i.e., failure to start, etc.) the manufacturer may perform the maintenance that is necessary to enable the vehicle to operate in a normal manner. This maintenance must be documented and reported in the PV report on that vehicle's configuration prepared and submitted by the manufacturer.

(e) No quality control, quality assurance testing, assembly or selection procedures may be used on the test vehicle or any portion of the test vehicle including parts and subassemblies, unless such quality control, quality assurance testing, assembly or selection procedures (1) are used normally during the production and assembly of all other vehicles of this configuration which will be distributed in commerce, (2) are required or permitted under this subpart or (3) are approved in advance by the Administrator.

(Sec. 13 of the Noise Control Act (42 U.S.C. 4912))

**§ 205.157-7 Testing.**

(a) The manufacturer shall conduct one valid test in accordance with the test procedures specified in Appendix I of this subpart for each vehicle selected for production verification testing.

(b) The manufacturer shall not perform any maintenance on the test vehicle, except as provided for by § 205.157-6.

(c) If a vehicle is unable to complete the noise test, the manufacturer may replace the vehicle. Any replacement vehicle must be a production vehicle of the same configuration as the replaced vehicle or a noisier configuration and will be subject to all the provisions of these regulations. Any replacement must be reported in the production verification report including the reason for the replacement.

(d) If a vehicle fails to comply with the standards of this subpart when tested in accordance with the procedures specified in paragraph (a) of this section, the manufacturer must proceed in accordance with § 205.157-2(e) of this subpart.

(Sec. 13 of the Noise Control Act (42 U.S.C. 4912))

**§ 205.157-8 Changes to, addition of, and deviation from a vehicle configuration during the model year.**

(a) Any change to a configuration with respect to any of the parameters stated in § 205.157-3 constitutes the addition of a new and separate configuration or category to the manufacturer's product line.

(b)(1) When a manufacturer introduces a new category or configuration to his product line, he must proceed in accordance with § 205.157-2.

(2) Where the configuration to be added can be grouped within a verified category and is estimated to have a lower A-weighted noise level than a previously verified configuration within the same category then the manufacturer may submit a report according to § 205.157-4 with respect to the new configuration, and the configuration will be considered verified.

(Sec. 13 of the Noise Control Act (42 U.S.C. 4912))

**§ 205.157-9 Production verification based on data from previous model years.**

(a)(1) Except as provided in paragraph (a)(2) of this section, production verification of each configuration will not be required for subsequent model years when the manufacturers' initial production verification noise emission level is at least 2 dB below the noise emission standard in effect for that model year and when the manufacturer has not made any changes (which increase the noise emission level) to the noise control components or elements of design used on that configuration.

(2) Production verification of each configuration will be required for those model years when the more stringent noise emission standards become effective.

(b) For those configurations whose initial PV noise emission level is less than 2 dB below the standard in effect, production verification will be required when production of that configuration commences each model year, unless the Administrator, upon request by the manufacturer, permits the use of production verification data for specific configurations from previous production verification reports. Considerations relevant to the Administrator's decision to permit production verification carry-over on these configurations may include, but are not limited to:

(1) The level of the standard in effect for the year in question.

(2) Performance based on production verification data from previous years.

(3) Performance based on data obtained from selective enforcement testing during previous years.

(4) The number and type of changes in the design of noise control features incorporated in the new models that affect the noise emission level.

(5) Any other noise emission test data that the manufacturer may wish to submit to support his request.

(Sec. 13 of the Noise Control Act (42 U.S.C. 4912))

**§ 205.157-10 Order to cease distribution.**

(a) If a category or configuration is found not to comply with this subpart because it has not been verified properly pursuant to § 205.157-2, the Administrator may issue an order to the manufacturer to cease distribution in commerce vehicles of that category or configuration. This order will not be issued if the manufacturer has made a good faith attempt to properly production verify the category or configuration and can establish such good faith.

(b) Any such order shall be issued after notice and opportunity for a hearing which will be held in accordance with 5 U.S.C. 554.

(Sec. 11 of the Noise Control Act (42 U.S.C. 4910))

**§ 205.158 Labeling requirements.**

(a)(1) The manufacturer of any vehicle subject to the production verification requirements of this subpart must, at the time of manufacture, affix a label, of the type specified in paragraph (a)(2), (3), and (4) of this section, to all such vehicles to be distributed in commerce.

(2) The label must be plastic or metal and be welded, riveted, or otherwise permanently attached in a readily visible position.

(3) The label must be affixed by the vehicle manufacturer who has production verified the vehicle, in such a manner that the label cannot be removed without destroying or defacing it, and must not be affixed to any piece of equipment that is easily detached from such vehicle.

(4) The label must be lettered in the English language in legible block letters and numerals, which must be of a color that contrasts with the background of the label.

(5) The label must contain the following information:

(i) The label heading: Motorcycle Noise Emission Control Information;

(ii) The statement:

This —— (model year) ——— (model specific code) motorcycle, —— (serial number), meets EPA noise emission requirements of —— (noise emission standard) dBA at —— (closing rpm) rpm by the Federal test procedure. Modifications which cause this motorcycle to exceed Federal noise standards are prohibited by Federal law. See owner's manual.

(6) The model specific code is limited to ten spaces which includes three spaces for the manufacturer's abbreviation (see paragraph 7 of this section), three spaces for the class identification, and four spaces for the advertised engine displacement respectively.

(7) All motorcycle manufacturers shall use the following abbreviations in their model specific code.

| | |
|---|---|
| BMW | BMW |
| Bultaco | BUL |
| Can-Am Bombardier | CAB |
| Chaparral | CHA |
| Cheeta | CHE |
| Ducati | DUC |
| Fox | FOX |
| Harley Davidson | HAR |
| Heald | HEA |
| Hercules | HER |
| Hodaka | HOD |
| Honda | HON |
| Husqvarna | HUS |
| JAWA/CZ | JAW |
| Kawasaki | KAW |
| KTM | KTM |
| Laverda | LAV |
| Moto Benilli | BEN |
| Moto Guzzi | GUZ |
| Moto Morini | MOR |
| MV Agusta | MVA |
| Norton Triumph | TRI |
| Rokon | ROK |
| Suzuki | SUZ |
| Yamaha | YAM |

(8) Moped manufacturers only shall use the following abbreviations in their model specific code.

| | |
|---|---|
| AMF | AMF |
| Benelli | BEL |
| Califlo | CAL |
| Carabela | CAR |
| Cimatti | CIM |
| Columbia | COL |
| E-Z Rider | EZR |
| Flying Dutchman | FLY |
| Foxi | FOI |
| Gadabout | GAD |
| Garelli | GAR |
| Gitane | GIT |
| Honda | HON |
| Indian | IND |
| Intramotor | INT |
| Italvelo | ITA |
| Kreidler | KRE |
| Lazer | LAZ |
| Malagati | MAL |
| Morini | MOI |
| Motobecane/Solex | MBE |
| Moto Guzzi | GUZ |
| Negrini | NEG |
| Odyssey | ODY |
| Pacer | PAC |
| Pack-A-Way | PAK |
| Peugeot | PEU |
| Puch | PUC |
| Riviera | RIV |
| Sachs | SAC |
| Safari | SAF |
| Scorpion | SCO |
| Smily | SMI |
| Snark | SNA |
| Sori II | SON |
| Speed Bird | SPE |
| Sprinter | SPR |
| SuVega | SUV |
| Tomas | TOM |
| Vaespa | VES |
| Yankee Doodler | YAN |

(9) If a new motorcycle manufacturer begins production of vehicles subject to this regulation, the Administrator will assign him a 3-letter manufacturer abbreviation as soon as reasonably practical after his existence is known to the Agency.

(b) Any vehicle manufactured in the United States solely for use outside the United States must be clearly labeled in accordance with the provisions of paragraphs (a)(2), and (3) and (4) of this section with the statement; "For Export Only".

(c) Any competition motorcycle as defined in § 205.151(a)(3), shall be labeled in accordance with the provisions of paragraphs (a)(1), (2), (3) and (4) of this section with the statement:

This motorcycle is designed for closed course competition use only. It does not conform to U.S. EPA motorcycle noise standards.

(d) It will be permissible for manufacturers to meet the requirements of this section by consolidating these labeling requirements with other government labeling requirements in one or more labels, provided the provisions of paragraphs (a) (2), (3) and (4) of this section are met.

(e) The manufacturer must maintain and provide to the Administrator upon request, such records which enable the Administrator to ascertain the month of manufacture.

(Secs. 10 and 13 of the Noise Control Act (42 U.S.C. 4909 and 4912))

**§ 205.159 Testing by the Administrator.**

(a)(1) In order for the Administrator to determine whether such vehicles or a manufacturer's test facility conform to applicable regulations, the Administrator may require that vehicles to be tested pursuant to the Act be submitted to him, at such place and time as he reasonably designates. He may designate the quantity of vehicles and the duration of time he reasonably requires for the purpose of conducting tests in accordance with test procedures described in Appendix I. The manner in which the Administrator conducts such tests, the EPA test facility, and the test procedures employed will be based upon good engineering practice and meet or exceed the requirements of Appendix I of the regulations.

(2) If the Administrator specifies that he will conduct such testing at the manufacturer's facility, the manufacturer shall make available instrumentation and equipment of the type required for test operations by these regulations. The Administrator may conduct such tests with his own equipment, having specifications equal to or exceeding the performance specifications of the instrumentation and equipment required in these regulations.

(3) The manufacturer may observe tests conducted by the Administrator pursuant to this section on vehicles produced by the manufacturer and may copy the data accumulated from such tests. The manufacturer may inspect any of the vehicles before and after testing by the Administrator.

(b)(1) If, based on tests conducted by the Administrator, or on other relevant information, the Administrator determines that the test facility does not meet the requirements of Appendix I (or the requirements for an alternative test procedure approved under 205.154), the Administrator will give notice to the manufacturer in writing of his determination and the reasons underlying it.

(2) The manufacturer may, at any time within 15 days after receipt of a notice issued under paragraph (b)(1) of this section, request a hearing conducted in accordance with 5 U.S.C. 554 on the issue of whether his test facility met the requirements as specified in Appendix I (or the alternative procedure). Such notice will not take effect until 15 days after its receipt by the manufacturer or, if a hearing is requested under this paragraph, until adjudication by the Administrative law judge.

(3) After any notice issued under paragraph (b)(1) of this section has taken effect, no data thereafter derived from that test facility will be acceptable for purposes of this subpart.

(4) The manufacturer may request in writing that the Administrator reconsider his determination under paragraph (b)(1) of this section based on data or information which indicates that changes have been made to the test facility and that those changes have resolved the reasons for disqualification.

(5) Within 10 working days after receipt of the manufacturer's request for reconsideration pursuant to paragraph (b)(4) of this section, the Administrator will notify the manufacturer of his determination and of the reasons underlyng it with regard to the requalification of the test facility.

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(c) The Administrator will assume all reasonable costs associated with shipment of vehicles to the place designated pursuant to paragraph (a) of this section except with respect to:

(1) Any production verification testing performed at a place other than the manufacturer's facility as provided in § 205.157–2(a), or as a result of the manufacturer's not owning or having access to a test facility;

(2) Testing of a reasonable number of vehicles (i) for purposes of selective enforcement auditing under § 205.160, (ii) or if the manufacturer has failed to establish that there is a correlation between its test facility and the EPA test facility, (iii) or the Administrator has reason to believe, and provides the manufacturer with a statement of such reason, that the vehicles to be tested would fail to meet the standard prescribed in this subpart if tested at the EPA test facility even though they would meet such standard if tested at the manufacturer's test facility;

(3) Any testing performed during a period when a notice issued pursuant to paragraph (b) of this section is in effect;

(4) Any testing performed at a place other than the manufacturer's facility as a result of the manufacturer's failure to permit the Administrator to conduct or monitor testing as required by this subpart; and

(5) Testing of up to 10 percent of the manufacturer's production verification test vehicles for a model year if the Administrator determines testing these vehicles at the EPA test site is necessary to assure that a manufacturer has acted or is acting in compliance with the Act.

(Secs. 11 and 13 of the Noise Control Act (42 U.S.C. 4910 and 4912))

**§ 205.160 Selective enforcement auditing (SEA) requirements.**

***§ 205.160–1 Test request.**

(a) The Administrator will request all testing under § 205.160 by means of a test request addressed to the manufacturer.

(b) The test request will be signed by the Assistant Administrator for Enforcement or his designee. The test request will be delivered to the plant manager or other responsible official as designated by the manufacturer.

(c) The test request will specify the vehicle category, configuration or configuration subgroup selected for testing, the manufacturer's plant or storage facility from which the vehicles must be selected, and the time at which the vehicles must be selected. The test request will also provide for situations in which the selected category, configuration, or configuration subgroup is unavailable for testing. The test request may include an alternative category, configuration, or configuration subgroup designated for testing in the event that vehicles of the first specified category, configuration, or configuration subgroup are not available for testing because the vehicles are not being manufactured at the specified plant, are not being manufactured during the specified time, or are not being stored at the specified plant or storage facility.

(d)(1) If the manufacturer projects a yearly production of fewer than 50 vehicles of the specified category, configuration or configuration subgroup to be tested, then within five (5) days of receipt of the request, the manufacturer must notify the Administrator of such low volume production. The Administrator will then provide a revised test request specifying a testing plan which imposes no greater risk of failure (5%) at the acceptable quality level (10%) than the plan in Appendix II. Upon receipt of the revised test request, the manufacturer must select and test a sample of vehicles from the category, configuration or configuration subgroup specified in the test request in accordance with this subpart and the conditions specified in the test request.

(2) If the manufacturer produces 50 or more vehicles of the specified category, configuration or configuration subgroup per year, then upon receipt of the test request, the manufacturer must select and test a sample of vehicles from the category, configuration or configuration subgroup specified in the test request in accordance with this subpart and the conditions specified in the test request.

(e)(1) Any testing conducted by the manufacturer under a test request must be initiated within the time period specified in the test request; except that initiation may be delayed for increments of 24 hours or one business day where ambient test site weather conditions, or other conditions beyond the control of the manufacturer, in that 24-hour period, do not permit testing. The manufacturer must record the conditions for this period.

(2) The manufacturer must complete noise emission testing on a minimum of ten vehicles per day unless otherwise provided by the Administrator or unless ambient test site conditions permit only the testing of a lesser number in which case the ambient test site weather conditions for that period must be recorded.

(3) The manufacturer is allowed 24 hours to ship vehicles from a sample from the assembly plant to the testing facility if the facility is not located at the plant or in close proximity to the plant. The Administrator may approve more time based upon a request by the manufacturer accompanied by a satisfactory justification.

(f) The Administrator may issue an order to the manufacturer to cease distribution in commerce of vehicles of a specified category, configuration, or configuration subgroup being manufactured at a particular facility, if:

(1) The manufacturer refuses to comply with the provisions of a test request issued by the Administrator under this section; or

(2) The manufacturer refuses to comply with any of the requirements of this section.

(g) A cease distribution order will not be issued under paragraph (f) of this section if the manufacturer's refusal is caused by conditions and circumstances outside his control which render compliance with the provisions of a test request or with any other requirements of this section impossible. Conditions and circumstances outside the control of the manufacturer include, but are not limited to, the temporary unavailability of equipment and personnel needed to conduct the required tests caused by uncontrollable factors, such as equipment breakdown or failure or illness of personnel. Failure of the manufacturer to adequately plan for and provide the equipment and personnel needed to conduct the tests do not constitute uncontrollable factors. The manufacturer must bear the burden of establishing the presence of the conditions and circumstances required by this paragraph.

(h) Any order to cease distribution will be issued only after a notice and opportunity for a hearing in accordance with 5 U.S.C. 554.

(Secs. 11 and 13 of the Noise Control Act (42 U.S.C. 4910 and 4912))

**§ 205.160–2 Test sample selection.**

(a) Vehicles comprising the sample which are required to be tested under a test request in accordance with this subpart must be selected consecutively as they are produced. The provisions of § 205.157–7 (b) and (c) also pertain to this section.

(b) The Acceptable Quality Level (AQL) is 10 percent. The appropriate sampling plans associated with the designated AQL are contained in Appendix II of the test request.

(c) The vehicles of the category, configuration or configuration subgroup selected for testing must be assembled by the manufacturer for distribution in commerce using the manufacturer's normal production process.

(d) Unless otherwise indicated in the test request, the manufacturer must initiate testing with the vehicles of the

category, configuration or configuration subgroup specified in the test request which are next scheduled for production after receipt of the test request.

(e) The manufacturer must keep on hand all products in the test sample until the sample is accepted or rejected in accordance with § 205.160–6; except that vehicles actually tested and found to be in conformance with this regulation need not be kept.

(Sec. 13 of the Noise Control Act (42 U.S.C. 4912))

**§ 205.160–3. Test sample preparation.**

Prior to the official test, each test vehicle selected in accordance with § 205.160–2 must be prepared in accordance with § 205.157–6.

(Sec. 13 of the Noise Control Act (42 U.S.C. 4912))

**§ 205.160–4 Testing procedures.**

(a) The manufacturer must conduct one valid test in accordance with the appropriate test procedures specified in Appendix I, on each vehicle selected for testing under this subpart.

(b) No maintenance may be performed on test vehicles except as provided by § 205.160–3. In the event a vehicle is unable to complete the noise emission test, the manufacturer may replace the vehicle. Any replacement vehicle must be a production vehicle of the same category, configuration or subgroup as the vehicle which it replaced, and it is subject to all the provisions of this subpart.

(Sec. 13 of the Noise Control Act (42 U.S.C. 4912))

**§ 205.160–5 Reporting of the test results.**

(a)(1) The manufacturer must submit a copy of the test report for all testing conducted pursuant to § 205.160 at the conclusion of each 24-hour period during which testing is done.

(2) For each test conducted the manufacturer must provide the following information:

(i) Category, configuration or configuration subgroup identification where applicable;

(ii) Year, make, assembly date, and model of vehicle;

(iii) Vehicle serial number; and

(iv) Test results by serial numbers.

(b) In the case where an EPA Enforcement Officer is present during testing required by this subpart, the written reports requested in paragraph (a) of this section may be given directly to the Enforcement Officer.

(c) Within 5 days after completion of testing of an SEA, the manufacturer must submit to the Administrator a final report which will include the following:

(1) The name, location, and description of the manufacturer's noise emission test facilities which meet the specifications of Appendix I, and were utilized to conduct testing reported under this section, except, that a test facility that has been described in a previous submission under this subpart need not again be described, but must be identified as that facility.

(2) The following information for each noise emission test conducted:

(i) The individual records for the test vehicles required by § 205.161(a)(2) for all noise emission tests including for each invalid test, the reason for invalidation.

(ii) A complete description of any modification, repair, preparation, maintenance, or testing which could affect the noise emissions of the product and which was performed on the test vehicle but not performed on all other production vehicles; and,

(iii) The test results for any replaced vehicle and the reason for its replacement.

(3) A complete description of the sound data acquisition system if other than those specified in Appendix I.

(4) The following statement and endorsement:

This report is submitted pursuant to Section 6 and Section 13 of the Noise Control Act of 1972. To the best of——(company name) knowledge, all testing for which data are reported here was conducted in strict conformance with applicable regulations under 40 CFR Parts 205 *et seq.*, all the data reported here are a true and accurate representation of such testing, and all other information reported here is true and accurate. I am aware of the penalties associated with violations of the Noise Control Act of 1972 and the regulations thereunder.——(authorized representative).

(5) Additional information required by the test request.

(d) Information required to be submitted to the Administrator under this section must be sent to the following address: Director, Noise and Radiation Enforcement Division, (EN–387), U.S. Environmental Protection Agency, Washington, D.C. 20460.

(Sec. 13 of the Noise Control Act (42 U.S.C. 4912))

**§ 205.160–6 Passing or failing under SEA.**

(a) A failing vehicle is one whose measured noise level is in excess of the applicable noise emission standard in § 205.152.

(b) The number of failing vehicles in a sample determines whether the sample passes or fails (See applicable tables in Appendix II). If the number of failing vehicles is greater than or equal to the number of Column B, the sample fails. If the number of failing vehicles is less than or equal to the number in Column A, the sample passes.

(c) Pass or failure of an SEA takes place when a decision that a vehicle is a passing or failing unit is made on the last vehicle required to make a decision under paragraph (b) of this section.

(d) If the manufacturer passes the SEA, he will not be required to perform any additional testing on subsequent vehicles to satisfy the test request.

(e) The Administrator may terminate testing earlier than required in paragraph (b) of this section, based on a request by the manufacturer, accompanied by voluntarily ceasing distribution in commerce of vehicles from the category, configuration or configuration subgroup in question, manufactured at the plant which produced the products being tested. Before reinitiating distribution in commerce of that vehicle category, configuration or configuration subgroup from that plant, the manufacturer must take the action described in § 205.160–8(a) (1) and (2).

(Sec. 13 of the Noise Control Act (42 U.S.C. 4912))

**§ 205.160–7 Continued testing.**

(a) If an SEA failure occurs according to paragraph (b) of § 205.160–6, the Administrator may require that any or all vehicles of that category, configuration or configuration subgroup produced at that plant be tested before distribution in commerce.

(b) The Administrator will notify the manufacturer in writing of his intent to require continued testing of vehicles under paragraph (a) of this section.

(c) The manufacturer may request a hearing on the issues of whether the SEA was conducted properly; whether the criteria for SEA failure have been met; and the appropriateness or scope of a continued testing order. If a hearing is requested, the hearing will begin no later than 15 days after the date on which the Administrator received the hearing request. Neither the request for a hearing nor the fact that a hearing is in progress will affect the responsibility of the manufacturer to commence and continue testing required by the Administrator pursuant to paragraph (a) of this section.

(d) Any tested vehicle which demonstrates conformance with the applicable standard may be distributed into commerce.

(e) Any distribution into commerce of a vehicle which does not comply with the applicable standard is a prohibited act.

(Secs. 10 and 13 of the Noise Control Act (42 U.S.C. 4909 and 4912))

**§ 205.160–8 Prohibition of distribution in commerce; manufacturer's remedy.**

(a) The Administrator will permit the manufacturer to cease testing under § 205.160–7 after the manufacturer has taken the following actions:

(1) Submission of a written report to the Administrator which identifies the reason for the noncompliance of the vehicles, describes the problem and describes the proposed quality control or quality assurance remedies to be taken by the manufacturer to correct the problem or establishes that the requirements for an engineering change pursuant to § 205.157–8 have been completed, and

(2) Demonstration that the specified vehicle category, configuration or configuration subgroup has passed a retest conducted in accordance with § 205.160, and the conditions specified in the test request.

(b) The manufacturer may begin testing under paragraph (a)(2) of this section upon submitting the report required by paragraph (a)(1) of this section, and may cease continued testing upon making the demonstration required by paragraph (a)(2) of this section. The Administrator may require resumption of continued testing if he determines that the manufacturer has not satisfied the requirements of paragraphs (a) (1) and (2) of this section.

(c) Any vehicle failing the prescribed noise emission tests conducted pursuant to Appendix I may not be distributed in commerce until necessary adjustments or repairs have been made and the vehicle passes a retest.

(Secs. 10 and 13 of the Noise Control Act (42 U.S.C. 4909 and 4912))

**§ 205.161 Maintenance of records: Submittal of information.**

(a) Except as otherwise provided in the regulation, the manufacturer of any vehicle subject to any of the standards or procedures prescribed in this subpart shall establish, maintain and retain the following adequately organized and indexed records:

(1) General records:

(i) Identification and description by category, configuration, and class parameters of all vehicles in the manufacturer's product line for which testing is required under this subpart and the identification and description of all devices incorporated into the vehicle for the purpose of noise control and attenuation.

(ii) A description of any procedures other than those contained in this subpart used to perform noise emission tests on any test vehicle.

(iii) A record of the calibration of the acoustical instrumentation as described in Appendix I.

(iv) A record of the date of manufacture of each vehicle subject to this subpart, keyed to the serial number.

(2) Individual records for test vehicles:

(i) A complete record of all noise emission tests performed for Production Verification and Selective Enforcement Audit (except tests performed by EPA directly), including all individual worksheets and other documentation or exact copies relating to each test.

(ii) A record of the information required, recorded as described in Appendix I, and

(iii) A record and description of all repairs, maintenance and other servicing which were performed before successful testing of the vehicle pursuant to these regulations and which could affect the noise emissions of the vehicle, giving the date and time of the maintenance or service, the reason for it, the person authorizing it, and the names of supervisory personnel responsible for the conduct of the maintenance or service.

(3) A properly filed production verification report following the format prescribed by the Administrator in § 205.157–4 fulfills the requirements of paragraphs (a)(1) (i) and (ii) of this section.

(4) All records required to be maintained under this subpart must be retained by the manufacturer for a period of three (3) years from the production verification date. Records may be retained as hard copy or alternatively reduced to microfilm, punch cards, etc., depending on the record retention procedures of the manufacturer; however, when an alternative method is used, all information contained in the hard copy must be contained in the copy made by the alternative method.

(b) The manufacturer must, upon request, submit to the Administrator the following information with regard to new vehicle production:

(1) Number of vehicles, by category, configuration, or class scheduled for production for the time period designated in the request.

(2) Number of vehicles, by category, configuration, or class produced during the time period designated in the request.

(c) The reporting requirements of this regulation will no longer be effective after five (5) years from the last effective date of this regulation. However, the requirements will remain in effect if the Administrator is taking appropriate steps to repromulgate or modify the reporting requirements at that time.

(Sec. 13 of the Noise Control Act (42 U.S.C. 4912))

**§ 205.162 In-use requirements.**

**§ 205.162–1 Warranty.**

(a) The vehicle manufacturer who is required to production verify under this subpart must include in the owner's manual or in other information supplied to the ultimate purchaser the following statement:

NOISE EMISSIONS WARRANTY
[RESERVED]

(b) Not later than the date of submission of the production verification report required by § 205.157–4, the manufacturer must submit to the Administrator two (2) copies of all information provided to the ultimate purchaser which could reasonably be construed as impacting on the warranty required by paragraph (a) of this section as well as two (2) copies of each page on which the warranty appears.

(c) The manufacturer must submit two (2) representative copies of all information of a general nature, or modifications thereto, which is provided to dealers, zone representatives, or other agents of the manufacturer regarding the administration and application of the noise emission warranty. Information regarding noise emission warranty claims which is provided to a dealer or representative in response to a particular warranty claim or dealer inquiry is not considered to be information of a general nature, if such information does not receive broad distribution to dealers. Such information must be submitted not later than ten (10) days after distribution by the manufacturer.

(d) All information required to be sent to the Administrator pursuant to this section must be addressed to:

Director, Noise and Radiation Enforcement Division (EN–387), U.S. Environmental Protection Agency, Washington, D.C. 20460.

(Sec. 13 of the Noise Control Act (42 U.S.C. 4912))

**§ 205.162–2 Tampering.**

(a) For each model year and for each configuration of vehicles covered by this subpart, the manufacturer must submit to the Administrator a list of those acts which, in the manufacturer's estimation, might be done to the vehicle in use on more than an occasional basis and cause an increase in noise emissions above the standards prescribed in § 205.152. If, in the manufacturer's estimation, the same acts might be done for all configurations, and no additional

acts would be done on any one or more configurations, then the manufacturer may submit one list to cover his entire product line. The manufacturer must state his estimate, wherever possible, of the amount of increase in noise level each act may cause.

(b) The above information must be submitted to the Administrator within adequate time prior to the introduction into commerce of each configuration to allow for the development and printing of tampering lists, as provided in paragraphs (c) and (d) of this section.

(c) On the basis of the above information, the Administrator will develop a list of acts which, in his judgment, constitute the removal or rendering totally or partially inoperative, other than for purposes of maintenance, repair, or replacement, of noise control devices or elements of design of the vehicle. This list will be provided to the manufacturer by the Administrator within 30 days of the date on which the information required in paragraph (a) of this section is received by the Administrator. The list must be included in the statement to the ultimate purchaser as required by paragraph (d)(2) of this section. If the list is not provided by the Administrator within 30 days of the date on which the information required in paragraph (a) of this section is submitted, the manufacturer shall include only the statement in paragraph (d)(1) of this section until such time as the owner's manual is reprinted for other purposes.

(d) The manufacturer shall include in the owner's manual the following information:

(1) The statement:

TAMPERING WITH NOISE CONTROL SYSTEM PROHIBITED: Federal law prohibits the following acts or the causing thereof: (1) The removal or rendering inoperative by any person other than for purposes of maintenance, repair, or replacement, of any device or element of design incorporated into any new vehicle for the purpose of noise control prior to its sale or delivery to the ultimate purchaser or while it is in use, or (2) the use of the vehicle after such device or element of design has been removed or rendered inoperative by any person.

(2) The statement:

**AMONG THOSE ACTS PRESUMED TO CONSTITUTE TAMPERING ARE THE ACTS LISTED BELOW**

Immediately following this statement, the manufacturer must include the list developed by the Administrator under paragraph (c) of this section.

(e) Any act included in the list prepared pursuant to paragraph (c) of this section is presumed to constitute tampering; however, in any case in which a presumed act of tampering has been committed and it can be shown that such act resulted in no increase in the noise level of the vehicle or that the vehicle still meets the noise emission standard of § 205.152, the act will not constitute tampering.

(f) The provisions of this section are not intended to preclude any State or local jurisdiction from adopting and enforcing its own prohibitions against the removal or rendering inoperative of noise control systems on vehicles subject to this part.

(g) All information required by this section to be furnished to the Administrator must be sent to the following address: Director, Noise and Radiation Enforcement Division (EN-387), U.S. Environmental Protection Agency, Washington, D.C. 20460.

(Secs. 10, 13 of the Noise Control Act (42 U.S.C. 4909, 4912))

**§ 205.162-3 Instruction for maintenance, use, and repair.**

(a)(1) The manufacturer must provide to the purchaser of each vehicle covered by this subpart written instructions for the proper maintenance, use, and repair of the vehicle in order to provide reasonable assurance of the elimination or minimization of noise emission degradation throughout the life of the vehicle.

(2) The purpose of the instructions is to inform purchasers and mechanics of the acts necessary to reasonably assure that degradation of noise emission level is eliminated or minimized during the life of the vehicle. Manufacturers shall prepare the instructions with this purpose in mind. The instructions shall be clear and, to the extent practicable, written in non-technical language.

(3) The instructions must not be used to secure an unfair competitive advantage. They shall not restrict replacement equipment to original equipment or restrict service to dealer service unless such manufacturer makes public the performance specifications on such equipment.

(b) For the purpose of encouraging proper maintenance, the manufacturer must provide a record or log book which shall contain a schedule for the performance of all required noise emission control maintenance. Space must be provided in this record book so that the purchaser can note what maintenance was done, by whom, where, and when.

(c) Not later than the date of submission of the production verification report required by § 205.157-4, the manufacturer must submit to the Administrator two (2) copies of the maintenance instructions (including the record book) required by paragraphs (a) and (b) of this section.

(d)(1) The Administrator will require modifications to the instructions if they do not meet the requirements of paragraph (a) of this section.

(2) The manufacturer may file a petition for review of such modifications.

(3) The manufacturer's proposed instructions must be provided to the consumer pursuant to § 205.162-3(a)(1) pending review of the proposed instructions by the Agency.

(e) Information required to be submitted to the Administrator pursuant to this section shall be sent to the following address: Director, Noise and Radiation Enforcement Division (EN-387), U.S. Environmental Protection Agency, Washington, D.C. 20460.

(Sec. 13 of the Noise Control Act (42 U.S.C. 4912))

**§ 205.162-4 Retention of durability records.**

(a) Each manufacturer reponsible for compliance with the standards specified in § 205.152 must establish and maintain records for each vehicle configuration containing the information upon which the manufacturer relied in determining that the products will meet the standards throughout the acoustical assurance period.

(b) The records may include, but need not be limited to, the following:

(1) Durability data and actual noise testing on critical noise producing or attenuating components,

(2) Noise level deterioration curves on the entire vehicle,

(3) Data from products in actual use, or

(4) Engineering judgment.

(Sec. 13 of the Noise Control Act (42 U.S.C. 4912))

**§ 205.163 Recall of noncomplying motorcycles; relabeling of mislabeled motorcycles.**

(a) Pursuant to section 11(d)(1) of the Act, the Administrator may issue an order to the manufacturer to recall, repair, modify, or relabel any vehicles distributed in commerce which are not in compliance with this subpart.

(b) A recall order issued under this section shall be based upon a determination by the Administrator that vehicles of a specified category, configuration, or class which do not conform to the regulations or are improperly labeled have been distributed in commerce. This determination may be based on: (1) A technical analysis of the noise emission characteristics of the category, configuration, or class in question; or (2)

any other relevant information, including test data.

(c) For the purpose of this section, noise emissions are to be measured by the appropriate test procedure prescribed in Appendix I prior to sale or any other test which has been demonstrated to correlate with the prescribed test procedure in accordance with § 205.154.

(d) Any order to recall shall be issued only after notice and an opportunity for a hearing.

(e) All cost, including labor and parts, associated with the recall and repair or modification of noncomplying vehicles and relabeling of mislabeled vehicles under this section shall be borne by the manufacturer.

(f) This section shall not limit the discretion of the Administrator to take any other actions which are authorized by the Act.

(Sec. 11 of the Noise Control Act (42 U.S.C. 4910))

## Subpart E—Motorcycle Exhaust Systems

### § 205.164 Applicability.

(a) Except as otherwise provided in these regulations, the provisions of this subpart apply to any motorcycle replacement exhaust system or motorcycle replacement exhaust system component which:

(1) Meets the definition of the term "new product" in the Act; and

(2) Is designed and marketed for use on any motorcycle subject to the provisions of Subpart D of this part.

(b) The provisions of § 205.169 additionally apply to the motorcycle exhaust systems originally installed on vehicles subject to the requirements of Subpart D of this part.

(c) The provisions of § 205.169(e)(3) additionally apply to motorcycle replacement exhaust systems manufactured after January 1, 1983 that are designed and marketed for use on motorcycles manufactured before January 1, 1983.

(d) Except as provided for in § 205.169, the provisions of this subpart do not apply to exhaust systems which are designed and marketed solely for use on competition motorcycles as defined in § 205.151(a)(3).

(e) The provisions of the subpart do not apply to exhaust header pipes sold as separate products.

### § 205.165 Definitions.

(a) As used in this subpart, all terms not defined herein have the meaning given them in subpart D or in the Act.

(1) "Category" means a group of exhaust systems which are identical in all material aspects with respect to the parameters listed in § 205.168 of this subpart.

(2) "Exhaust header pipe" means any tube of constant diameter which conducts exhaust gas from an engine exhaust port to other exhaust system components which provide noise attenuation. Tubes with cross connections or internal baffling are not considered to be "exhaust header pipes."

(3) "Failing exhaust system" means that, when installed on any Federally regulated motorcycle for which it is designed and marketed, that motorcycle and exhaust system exceed the applicable standards.

(4) "Federally regulated motorcycle" means, for the purpose of this subpart, any motorcyle subject to the noise standards of Subpart D of this part.

(5) "Federal standards" means, for the purpose of this subpart, the standards specified in § 205.152(a)(1), (2) and (3).

(6) "Production verification exhaust system" means any exhaust system selected for testing, tested or verified pursuant to the production verification requirements of this subpart.

(7) "Stock configuration" means that no modifications have been made to the orginal equipment motorcycle that would affect the noise emissions of the vehicle when measured according to the acceleration test procedure.

(8) "Test exhaust system" means an exhaust system in a Selective Enforcement Audit test sample or a production verification system.

(b) [Reserved]

### § 205.166 Noise emission standards.

(a) *Noise emission standards.* (1) Exhaust systems and exhaust system components that are designed and marketed for use on any Federally regulated street motorcycle of the following and subsequent model years must be designed and built so that when installed on any such motorcycle which is in compliance with the requirements of Subpart D of this part, they will not cause that motorcycle to produce noise emissions in excess of the levels indicated:

(i) Systems designed and marketed for use on street motorcycles other than those that meet the definition of § 205.151(a)(2)(ii):

| Motorcycle model year | A-weighted noise level (dB) |
|---|---|
| (A) 1983 | 83 |
| (B) 1986 | 80 |

(ii) Systems designed and marketed for street motorcycles that meet the definition of § 205.151(a)(2)(ii) (moped-type street motorcycles):

| Motorcycle model year | A-weighted noise level (dB) |
|---|---|
| (A) 1983 | 70 |

(2) Exhaust systems and exhaust system components that are designed and marketed for use on any Federally regulated off-road motorcycle of the following and subsequent model years must be designed and built so that, at the time of sale, when installed on any such motorcycle which is in compliance with the requirements of Subpart D of this part, they will not cause that motorcycle to produce noise emissions in excess of the levels indicated:

(i) Systems designed and marketed for use on off-road motorcycles with engine displacements of 170 cc and lower:

| Motorcycle model year | A-weighted noise level (dB) |
|---|---|
| (A) 1983 | 83 |
| (B) 1986 | 80 |

(ii) Systems designed and marketed for use on off-road motorcycles with engine displacements greater than 170 cc:

| Motorcycle model year | A-weighted noise level (dB) |
|---|---|
| (A) 1983 | 86 |
| (B) 1986 | 82 |

(3) Exhaust systems and exhaust system components that are designed and marketed for use on any Federally regulated street motorcycle shall be designed and built so that, when installed on any such motorcycle which is in compliance with the requirements of Subpart D of this part, and when both the motorcycle and the exhaust system are properly maintained and used, they will not cause that motorcycle to produce noise emissions in excess of the levels specified in subparagraph (1) of this paragraph, for an Acoustical Assurance Period of one year or a distance of 6000 km (3729 mi) after the time of sale to the ultimate purchaser, whichever occurs first.

(4) Exhaust systems and exhaust system components that are designed and marketed for use on any Federally regulated off-road motorcycle must be designed and built so that, when installed on any such motorcycle which is in compliance with the requirements

of Subpart D of this part, and when both the motorcycle and the exhaust system are properly maintained and used, they will not cause that motorcycle to produce noise emissions in excess of the levels specified in subparagraph (2) of this paragraph, for an Acoustical Assurance Period of one year or a distance of 3000 km (1865 mi) after the time of sale to the ultimate purchaser, whichever occurs first.

(5) At the time of sale to the ultimate purchaser all products must comply with the standards set forth in paragraphs (a)(1) and (2) of this section.

(b) *Measurement procedure.* (1)(i) The standards set forth in paragraph (a) of this section refer to the noise emissions as measured in accordance with the measurement methodology specified in Appendix I–1 for all motorcycles except those street motorcycles meeting the definition of § 205.151(a)(2)(ii). Exhaust systems which alter a motorcycle's maximum rated RPM shall be tested using the unmodified motorcycle's maximum rated RPM to determine closing RPM or test RPM.

(ii) The standards set forth in paragraph (a) of this section for street motorcycles meeting the definition of § 205.151(a)(2)(ii) (moped-type street motorcycles) refer to noise emissions measured in accordance with the measurement methodology specified in Appendix I–2.

(2) Exhaust system components sold as separate products shall be tested as part of a system made up of that part and original equipment components to complete the system.

(3) Exhaust system components sold as separate products which are incompatible with original equipment components necessary to make a complete exhaust system, or which would not meet standards as prescribed in this subpart in such configuration, may be tested with non-original equipment components provided that the provisions of § 205.169(e)(1)(ii)(B) are carried out.

(Sec. 10 of the Noise Control Act (42 U.S.C. 4909))

**§ 205.167 Consideration of alternative test procedures.**

The Administrator may approve applications from manufacturers of original equipment and replacement exhaust systems for the approval of test procedures which differ from those contained in this subpart so long as the alternative procedures have been demonstrated to correlate with the prescribed procedure. To be acceptable, alternative test procedures must be such that the test results obtained will identify all those test exhaust systems which would not comply with the noise emission standards prescribed in § 205.166 when tested in accordance with the measurement methodology specified in Appendix I. After approval by the Administrator, testing conducted by manufacturers using alternative test procedures may be accepted by the Administrator for all purposes including, but not limited to, production verification testing and selective enforcement audit testing.

**§ 205.168 Production verification.**

**§ 205.168–1 General requirements.**

(a) Each manufacturer of motorcycle exhaust systems manufactured for Federally regulated motorcycles and distributed in commerce in the United States which are subject to the noise emission standards prescribed in this subpart and not exempted in accordance with Subpart A, § 205.5:

(1) Must verify each exhaust system in accordance with the production verification procedures described in this subpart;

(2) Must submit a production verification report, as required by § 205.168–3 of this subpart;

(3) Must label each exhaust system in accordance with the requirements of § 205.169 of this subpart; and

(4) Must only manufacture exhaust systems which conform to the applicable noise emission standard established in § 205.166 of this regulation when installed on any Federally regulated motorcycle for which it has been designed and marketed.

(b) The manufacturer who is required to conduct product verification testing to demonstrate compliance with a particular standard must satisfy all other provisions of this subpart applicable to that standard, including, but not limited to, record keeping, reporting, and in-use requirements.

(Sec. 13 of the Noise Control Act (42 U.S.C. 4912))

**§ 205.168–2 Production verification procedures.**

(a)(1) Prior to distribution into commerce of exhaust systems of a specific category, the manufacturer of the exhaust system shall verify the category in accordance with this subpart.

(2) Notwithstanding paragraph (a)(1) of this section, the manufacturer may distribute in commerce exhaust systems of that category for up to 90 days if weather or other conditions beyond the control of the manufacturer make production verification of a category impossible and if the following conditions are met:

(i) The manufacturer performs the tests required under paragraphs (b) or (c) of this section on such category as soon as conditions permit;

(ii) The manufacturer maintains records of the conditions which make production verification impossible; and,

(iii) If on the 45th day following distribution in commerce of exhaust systems of that category, the manufacturer has not performed the tests required by paragraphs (b) or (c) of this section, the manufacturer within 5 days notifies the Administrator in writing that such exhaust systems have been distributed in commerce and provides to the Administrator documentation of the conditions which have made production verification impossible.

(3) At any time following receipt of notice under paragraph (a)(2)(iii) of this section with respect to a category, the Administrator may require that the manufacturer ship test exhaust systems to an EPA test facility for the required production verification testing.

(b) The production verification requirements for each exhaust system category consist of:

(1) Testing in accordance with § 205.168–8 of an exhaust system selected in accordance with § 205.168–4;

(2) Compliance of the test exhaust system on a motorcycle for which it is marketed with the applicable standard when tested in accordance with Appendix I; and

(3) Submission of a production verification report pursuant to § 205.168–3.

(c) A manufacturer is required to verify all categories of exhaust systems within his product line for each class of Federally regulated motorcycle for which it is designed and marketed. A category of a replacement exhaust system is defined by a separate combination of at least the following parameters:

(1) Muffler/Silencer: (i) Volume; (ii) type of absorption material; (iii) amount of absorption material; (iv) length; (v) diameter; (vi) directional flow of exhaust gas; (vii) interior construction; (viii) shell and inner construction material; (ix) number of header pipes entering muffler; and (x) specific motorcycle application.

(2) Expansion Chamber: (i) Volume; (ii) diameter; (iii) construction material; (iv) directional flow of exhaust gas; (v) length; and (vi) specific motorcycle application.

(3) Spark Arrestors: (i) Volume; (ii) construction material; (iii) directional flow of exhaust gas; (iv) length; (v) diameter; and (vi) specific motorcycle application.

(4) Other Exhaust System Components: (i) Volume; (ii) shape; (iii) length; (iv) diameter; (v) material; (vi) directional flow of exhaust gas; and (vii) specific motorcycle application.

(d) Exhaust system components sold as separate products shall be tested pursuant to § 205.166(b).

(e) Original equipment exhaust systems that are also sold as replacement systems for the same motorcycle configuration need not be tested under this subpart if they have been tested or represented in a test report under Subpart D of this part.

(f) A manufacturer has the following alternatives if any test exhaust system is determined to not be in compliance with applicable standards:

(1) Delete the category from the production verification report. Categories so deleted may be included in a later report under § 205.168–3.

(2) Modify the test exhaust system and demonstrate by testing that it meets applicable standards. All modifications and test results must be reported in the production verification report. The manufacturer must modify all production exhaust systems of the same category in the same manner as the test exhaust system before distribution in commerce.

(g) Upon request by the Director of the Noise and Radiation Enforcement Division, the manufacturer shall notify the Director of any production verification testing scheduled by the manufacturer pursuant to this section so that EPA Enforcement Officers or other employees of the Agency may be present to monitor or conduct the testing in lieu of the manufacturer.

(Sec. 13 of the Noise Control Act (42 U.S.C. 4912))

**§ 205.168–3 Production verification report; required data.**

(a) Before distribution in commerce of any product to which this regulation applies, the manufacturer must submit a production verification report to the Director, Noise and Radiation Enforcement Division (EN–387), U.S. Environmental Protection Agency, Washington, D.C. 20460.

(b) The report must be signed by an authorized representative of the manufacturer and must include the following:

(1) The name, location, and description of the manufacturer's noise emission test facilities which meet the specifications of Appendix I and are used to conduct testing pursuant to this subpart. A test facility that has been described in a previous submission under this subpart need not be described again but must be identified as such.

(2) A description of all exhaust system categories to be distributed in commerce by the manufacturer (including those exhaust systems not intended for use on Federally-regulated motorcycles), including the part number for each exhaust system category that is designed and marketed for a Federally regulated motorcycle. The manufacturer may satisfy the exhaust system description requirements of this paragraph by submitting as part of the production verification report a copy of his sales literature that describes his product line (by part number) including options, provided, that this literature is supplemented with any additional information necessary to fulfill the requirements of this section.

(3) The following information for each noise emission test conducted:

(i) The individual record for the test vehicles required by § 205.172(a)(2) for all official tests conducted in accordance with § 205.168–8 including, for each invalid test, the reason for invalidation;

(ii) A complete description of any preparation, maintenance, or testing which could affect the noise emissions of test motorcycles, and which was performed on the test motorcycle or the test exhaust system and will not be performed on all other production vehicles or exhaust systems; and

(iii) The reason for replacement, where a substitute exhaust system or replacement motorcycle was necessary, and test results, if any, for substitute exhaust systems and replaced motorcycles.

(4) A complete description of the sound data acquisition system if other than those specified in Appendix I.

(5) For each category subject to the noise emission standards of § 205.166, a sample of the completed label which is required under § 205.169 of this Subpart. The label must contain for each category the information which is required by § 205.169(e)(1).

(6) The following statement and endorsement:

"This report is submitted pursuant to Section 6 and Section 13 of the Noise Control Act of 1972. To the best of (company name) knowledge, all testing for which data are reported here was conducted in strict conformance with applicable regulations under 40 CFR Part 205 *et seq.*, all the data reported here are a true and accurate representation of such testing and all other information reported here is true and accurate. I am aware of the penalties associated with violations of the Noise Control Act of 1972 and the regulations thereunder. (authorized representative)."

(c) Where a manufacturer elects to submit separate production verification reports for portions of his product line as provided in paragraph (a) of this section, information provided in previous reports need not be resubmitted. Information necessary to update or make current previously submitted information must be submitted.

(d) Any change with respect to information reported under this section must be reported as soon as the information becomes available.

(Sec. 13 of the Noise Control Act (42 U.S.C. 4912))

**§ 205.168 Test exhaust system selection.**

(a) A test exhaust system for which production verification testing is required by § 205.168–2 must be assembled using the manufacturer's normal production processes and intended for distribution in commerce.

(b) For purposes of this section and 205.168–5, prescribed manufacturing and inspection procedures include quality control testing and assembly procedures normally performed by the manufacturer on like products during early protection if the resulting testing is not biased by this procedure.

(Sec. 13 of the Noise Control Act (42 U.S.C. 4909, 4912))

**§ 205.168–5 Test exhaust system preparation.**

(a) Before the official test, the test exhaust system selected in accordance with § 205.168–4 must not be prepared, tested, modified, adjusted, or maintained in any manner unless such preparation, tests, modifications, adjustments or maintenance (1) are part of the manufacturer's prescribed manufacturing and inspection procedures and are documented in the manufacturer's internal exhaust system assembly and inspection procedures, (2) are required or permitted under this subpart, or (3) are approved in advance by the Administrator.

(b) No quality control, quality assurance testing, assembly or selection procedures may be used on the exhaust system or any portion of it, including parts and subassemblies, unless such quality control, quality assurance testing, assembly or selection procedures (1) are used normally during the production and assembly of all other exhaust systems of the category which will be distributed in commerce, (2) are required or permitted under this subpart,

or (3) are approved in advance by the Administrator.

(Sec. 13 of the Noise Control Act (42 U.S.C. 4912))

**§ 205.168–6 Test motorcycle selection.**

Test motorcycles to be used for production verification testing of exhaust systems must be of the subject class which has been assembled using the manufacturer's normal production processes, in stock configuration including exhaust system, as sold or offered for sale in commerce.

(Secs. 10, 13 of the Noise Control Act (42 U.S.C. 4909, 4912))

**§ 205.168–7 Test motorcycle preparation.**

(a) Before the official test, the test motorcycle selected in accordance with § 205.168–6 must not be prepared, tested, modified, adjusted, or maintained in any manner unless such preparation, tests, modifications, adjustments or maintenance are part of the original equipment manufacturer's prescribed manufacturing and inspection procedures, and are documented in the manufacturer's internal motorcycle assembly and inspection procedures, or (2) are required or permitted under this subpart, or (3) are approved in advance by the Administrator.

(b) Equipment or fixtures necessary to conduct the test may be installed on the motorcycle, if such equipment or fixtures shall have no effect on the noise emissions of the motorcycle as determined by the measurement methodology.

(c) In the event of a motorcycle malfunction (i.e., failure to start, etc.) maintenance that is necessary may be performed to enable the vehicle to operate in a normal manner. This maintenance must be documented and reported in the final report prepared and submitted in accordance with this subpart.

(d) No quality control, quality assurance testing, assembly or selection procedures may be used on the test vehicle or any portion thereof, including parts and subassemblies, that will not normally be used during the production and assembly of all other motorcycles of that class which will be distributed in commerce, unless such procedures are required or permitted under this subpart or are approved in advance by the Administrator.

(Sec. 13 of the Noise Control Act (42 U.S.C. 4912))

**§ 205.168–8 Testing.**

(a) The manufacturer of the exhaust system must conduct one valid test in accordance with the test procedure specified in Appendix I with his exhaust system installed in place of the original equipment exhaust system. Exhaust system components sold as separate products shall be tested as provided in § 205.168–2(d).

(b) In order to be considered a passing exhaust system, the test noise level must not exceed the applicable standard (§ 205.166).

(c) The manufacturer must not perform maintenance on the test motorcycles or test exhaust systems except as provided for by § 205.168–5 and § 205.168–7.

(d) If a motorcycle or test replacement exhaust system is unable to complete the emission test, the motorcycle or exhaust system may be substituted. Any substitute motorcyle or exhaust system must be a production motorcycle or exhaust system of the same model as the motorcycle or exhaust system that was replaced and will be subject to all the provisions of these regulations. Any replacement must be reported in the production verification report including the reason for the replacement.

(e) If an exhaust system category fails to comply with the requirements of this section when tested in accordance with the procedures specified in paragraph (a) of this section, the manufacturer must proceed in accordance with § 205.168–2(f) of this subpart.

(Sec. 13 of the Noise Control Act (42 U.S.C. 4912))

**§ 205.168–9 Changes to, addition of, and deviation from an exhaust system category or motorcycle class during the model year.**

(a) Any change to an exhaust system category or motorcycle class (see § 205.168–2 and § 205.151) with respect to any of the parameters stated in those respective sections, constitutes the addition of a new and separate category or motorcycle class to the manufacturer's product line.

(b) When a manufacturer introduces a new category or motorcycle class to his product line, he must proceed in accordance with § 205.168–2.

(Sec. 13 of the Noise Control Act (42 U.S.C. 4912))

**§ 205.168–10 Production verification based on data from previous model years.**

(a)(1) Production verification of each category will not be required for subsequent model years when the manufacturer's initial production verification noise emission level is at least 2 dB below the noise emission standard in effect for that model year, when the manufacturer has not changed the noise control components or elements of design used on that category which would cause the noise emission level to increase, and when the new model motorcycle has not been changed with respect to its noise control elements such that its noise level increases.

(2) Production verification of each category will be required for those model years when the more stringent noise emission standards become effective.

(b) For those configurations whose initial PV noise emission level is less than 2 dB below the standard in effect, production verification will be required when production of that configuration commences each model year, except as provided in paragraph (c) of this section or unless the Administrator, upon request by the manufacturer, permits the use of production verification data for specific configurations from previous production verification reports. Considerations relevant to the Administrator's decision to permit production verification carry-over on these configurations may include, but are not limited to:

(1) The level of the standard in effect for the year in question;

(2) Performance based on production verification data for previous years;

(3) Performance based on data obtained from selective enforcement testing during previous years;

(4) The number and type of changes in the design of noise control features incorporated in the new model motorcycles that could effect the noise emission level;

(5) The number and type of changes in the design of noise attenuation systems incorporated in the new model exhaust systems; and

(6) Any other noise emission test data which the manufacturer may care to submit.

(c) In succeeding years a manufacturer does not have to conduct production verification tests on exhaust systems which he continues to manufacture for regulated motorcycles of a previous model year and for which he has already conducted a PV test. If a manufacturer makes a change in the design of an exhaust system which reduces its attenuation and which has been verified for a previous model year, he must conduct a production verification test with respect to the earlier model year motorcycles.

(Sec. 13 of the Noise Control Act (42 U.S.C. 4912))

**§ 206.168–11 Order to cease distribution.**

(a) If a category of exhaust systems is found not to comply with this subpart because it has not been verified or labeled, as required by § 205.168–2 and § 205.169, the Administrator may issue

an order to the manufacturer to cease distribution in commerce exhaust systems of that category. This order will not be issued if the manufacturer has made a good faith attempt to properly production verify the category and can establish such good faith.

(b) Any such order shall be issued after notice and opportunity for a hearing which will be held in accordance with title 5 U.S.C. 554.

(Sec. 11 of the Noise Control Act (42 U.S.C. 4910))

**§ 205.169 Labeling requirements.**

(a) The manufacturer of any product (including the manufacturer of newly produced motorcycles) subject to production verification requirements of this subpart must, at the time of manufacture, affix a permanent, legible label, or mark of the type and in the manner described below, containing the information provided below, to all such exhaust systems or exhaust system components to be distributed in commerce.

(b) The labels or marks shall be affixed in such a manner that they cannot be removed without destroying or defacing them, and must not be applied to any part which is easily detached from such product.

(c) The label or mark shall be in a readily visible position when the exhaust system or exhaust system component is installed on all motorcycles for which it is designed and marketed.

(d) All required language shall be lettered in the English language in block letters and numerals in a color that contrasts with its background.

(e) The label or mark must contain the following information:

(1) For exhaust systems subject to the noise emission standards of § 205.166:

(i) The label heading: Motorcycle Exhaust System Noise Emission Control Information;

(ii)(A) For original equipment and replacement exhaust system, the following statement:

This (manufacturer's name) exhaust system (serial number) meets EPA noise emission requirements of (noise emission standard) dBA for the following motorcycles: (list of model specific codes). Installation of this exhaust system on motorcycle models not specified may violate Federal law.

(B) For exhaust system components designed and marketed for motorcycles, and tested in accordance with § 205.168 as a constituent of a complete exhaust system comprising non-original equipment components (other than itself), as provided for in § 205.166(b)(3), the following statement:

This (manufacturer's name) (type of component) (serial number), when installed with a legal (type of component), meets EPA noise emission requirements of (noise emission standard) dBA for the following motorcycles: (list of model specific codes). Installation of this exhaust system component on motorcycle models not specified may violate Federal law.

(iii) The model specific code must be the same as used by the motorcycle manufacturer and described in § 205.158(a)(6).

(2) For exhaust systems designed solely for use on competition motorcycles (as defined by § 205.151(a)(3) and so designated and labeled by the manufacturer), the statement:

This product is designed for use on closed course competition motorcycles only and does not conform to U.S. EPA noise emission standards. Used on motorcycles subject to EPA noise regulations constitutes tampering and is a violation of Federal law unless it can be shown that such use does not cause the motorcycle to exceed applicable Federal standards.

(3) For exhaust systems designed solely for use on motorcyles manufactured before January 1, 1983, the statement:

This product is designed for use on pre-1983 model year motorcycles only and does not conform to U.S. EPA noise emission standards. Use on motorcycles subject to EPA noise regulations constitutes tampering and is a violation of Federal law unless it can be shown that such use does not cause the motorcycle to exceed applicable Federal standards.

(4) For replacement exhaust systems manufactured in the United States solely for use outside the U.S. and not conforming to the noise emissions standards of this regulation, the statement: "For Export Only."

(f) The manufacturer must maintain and provide to the Administrator upon request, such records which enable the Administrator to ascertain the month of manufacture.

(Secs. 10 and 13 of the Noise Control Act (42 U.S.C. 4909 and 4912))

**§ 205.170 Testing by the Administrator.**

(a)(1) In order for the Administrator to determine whether such exhaust systems or a manufacturer's test facility conform to applicable regulations, the Administrator may require that exhaust systems to be tested pursuant to the Act be submitted to him, at such place and time as he reasonably designates. He may designate the quantity of exhaust systems and the duration of time he reasonably requires for the purpose of conducting tests in accordance with test procedures described in Appendix I. The manner in which the Administrator conducts such tests, the EPA test facility, and the test procedures employed will be based upon good engineering practice and meet or exceed the requirements of Appendix I.

(2) If the Administrator specifies that he will conduct such testing at the manufacturer's facility, the manufacturer shall make available instrumentation and equipment of the type required for test operators by these regulations. The Administrator may conduct such tests with his own equipment, having specifications equal to or exceeding the performance specifications of the instrumentation and equipment required in these regulations.

(3) The manufacturer may observe tests conducted by the Administrator pursuant to this section on exhaust systems produced by the manufacturer and may copy the data accumulated from such tests. The manufacturer may inspect any of the exhaust systems before and after testing by the Administrator.

(b)(1) If, based on tests conducted by the Administrator or on other relevant information, the Administrator determines that the test facility does not meet the requirements of Appendix I or the requirements for an alternative test procedure approved under § 205.154, the Administrator will give notice to the manufacturer in writing of his determination and the reasons underlying it.

(2) The manufacturer may, at any time within 15 days after receipt of a notice issued under paragraph (b)(1) of this section, request a hearing conducted in accordance with 5 U.S.C. 554 on the issue of whether his test facility met the requirements. Such notice will not take effect until 15 days after its receipt by the manufacturer, or, if a hearing is requested under this paragraph, until adjudication by the administrative law judge.

(3) After any notice issued under paragraph (b)(1) of this section has taken effect, no data thereafter derived from that test facility will be acceptable for purposes of this subpart.

(4) The manufacturer may request in writing that the Administrator reconsider his determination under paragraph (b)(1) of this section based on data or information which indicates that changes have been made to the test facility and that such changes have resolved the reasons for disqualification.

(5) Within 10 working days after receipt of the manufacturer's request for reconsideration pursuant to paragraph (b)(4) of this section, the Administrator will notify the manufacturer of his

determination and the reasons underlying it with regard to the requalification of the test facility.

(c) The Administrator will assume all reasonable costs associated with shipment of exhaust systems to the place designated pursuant to paragraph (a) of this section except with respect to:

(1) Any production verification testing performed at a place other than the manufacturer's facility as provided in § 205.168–2(a)(3), or as a result of the manufacturer's not owning or having access to a test facility;

(2) Testing of a reasonable number of exhaust systems (i) for purposes of selective enforcement auditing under § 205.171, or (ii) if the manufacturer has failed to establish that there is a correlation between its test facility and the EPA test facility, or (iii) the Administrator has reason to believe, and provides the manufacturer with a statement of such reason, that the exhaust systems to be tested would fail to meet the standard prescribed in this subpart if tested at the EPA test facility, even though they would meet such standard if tested at the manufacturer's test facility;

(3) Any testing performed during a period when a notice of nonconformance of the manufacturer's test facility issued pursuant to paragraph (b) of this section is in effect;

(4) Any testing performed at a place other than the manufacturer's facility as a result of the manufacturer's failure to permit the Administrator to conduct or monitor testing as required by this subpart; and

(5) In addition to any exhaust systems included in paragraph (c) (1), (2), (3), or (4) of this section, testing of up to 10 percent of the manufacturer's production verification test exhaust systems for a model year if the Administrator determines testing these exhaust systems at the EPA test site is necessary to assure that a manufacturer has acted or is acting in compliance with the Act.

(Secs. 11 and 13 of the Noise Control Act (42 U.S.C. 4910, 4912))

**§ 205.171 Selective enforcement auditing (SEA) requirements.**

**§ 205.171–1 Test Request.**

(a) The Administrator will request all testing under § 205.171 by means of a test request addressed to the manufacturer.

(b) The test request will be signed by the Assistant Administrator for Enforcement or his designee. The test request will be delivered to the plant manager or other responsible official as designated by the manufacturer.

(c) The test request will specify the exhaust system category, model and model year of motorcycle selected for testing, the manufacturer's plant or storage facility from which the exhaust systems must be selected, the method of selection and the time at which the exhaust systems must be selected. The test request will also provide for situations in which the selected exhaust system is unavailable for testing. The test request may include an alternative exhaust system category designated for testing in the event that exhaust systems of the first specified category are not available for testing because the exhaust systems are not being manufactured at the specified plant or are not being manufactured during the specified time or are not being stored at the specified plant or storage facility.

(d)(1) If the manufacturer projects a yearly production of fewer than 50 exhaust systems of the specified category to be tested, then, within five (5) days of receipt of the request, the manufacturer must notify the Administrator of such low volume production. The Administrator will then provide a revised test request specifying a testing plan which imposes no greater risk of failure (5%) at the acceptable quality level (10%) than the plan in Appendix II. Upon receipt of the revised test request, the manufacturer must select and test a sample of exhaust systems from the category specified in the test request in accordance with this subpart and the conditions specified in the test request.

(2) If the manufacturer produces 50 or more of the specified category, then, upon receipt of the test request, the manufacturer must select and test a sample of exhaust systems for the category specified in the test request in accordance with this subpart and the conditions specified in the test request.

(e)(1) Any testing conducted by the manufacturer under a test request must be initiated within the time period specified in the test request; except that initiation may be delayed for increments of 24 hours or one business day where ambient test site weather conditions, or other conditions beyond the control of the manufacturer, in that 24-hour period do not permit testing. The manufacturer must record the conditions for this period.

(2) The manufacturer must complete noise emission testing on a minimum of ten exhaust systems per day unless otherwise provided by the Administrator or unless ambient test site conditions permit only the testing of a lesser number, in which event the ambient test site weather conditions for that period must be recorded.

(3) The manufacturer is allowed 24 hours to ship exhaust systems from a sample from the assembly plant to the testing facility if the facility is not located at the plant or in close proximity to the plant. The Administrator may approve more time based upon a request by the manufacturer accompanied by a satisfactory justification.

(f) The Administrator may issue an order to the manufacturer to cease distribution in commerce of exhaust systems of a specified category being manufactured at a particular facility if:

(1) The manufacturer refuses to comply with the provisions of a test request issued by the Administrator under this section; or

(2) The manufacturer refuses to comply with any of the requirements of this section.

(g) A cease distribution order will not be issued under paragraph (f) of this section if the manufacturer's refusal is caused by conditions and circumstances outside his control which render compliance with the provisions of a test request or with any other requirements of this section impossible. Conditions and circumstances outside the control of the manufacturer include, but are not limited to, the temporary unavailability of equipment and personnel needed to conduct the required tests, caused by uncontrollable factors such as equipment breakdown or failure or illness of personnel. Failure of the manufacturer to adequately plan for and provide the equipment and personnel needed to conduct the tests does not constitute uncontrollable factors. The manufacturer must bear the burden of establishing the presence of the conditions and circumstances required by this paragraph.

(h) Any order to cease distribution will be issued only after notice and opportunity for a hearing in accordance with 5 U.S.C. 554.

(Secs. 11, 13 of the Noise Control Act (42 U.S.C. 4910 and 4912))

**§ 205.171–2 Test exhaust system;sample selection.**

(a) Exhaust systems comprising the sample which are required to be tested under a test request in accordance with this subpart must be selected consecutively as they are produced. The provisions of § 205.168–7 (d) and (e) also pertain to this section.

(b) The Acceptable Quality Level (AQL) is 10 percent. The appropriate sampling plans associated with the designated AQL are contained in Appendix II of the test request.

(c) The exhaust systems of the category selected for testing must be assembled by the manufacturer for

distribution in commerce using the manufacturer's normal production process.

(d) Unless otherwise indicated in the test request, the manufacturer must initiate testing with the exhaust systems of the category specified in the test request which are next scheduled for production after receipt of the test request.

(e) The manufacturer must keep on hand all products in the test sample until the sample is accepted or rejected in accordance with § 205.171–8; except that exhaust systems actually tested and found to be in conformance with this regulation need not be kept.

(Sec. 13 of the Noise Control Act (42 U.S.C. 4912))

**§ 205.171–3 Test motorcycle sample selection.**

A test motorcycle to be used for selective enforcement audit testing of exhaust systems must be a motorcycle of the subject class which has been assembled using the manufacturer's normal production process, in stock configuration including exhaust system, and sold or offered for sale in commerce.

(Sec. 13 of the Noise Control Act (42 U.S.C. 4912))

**§ 205.171–4 Test exhaust system preparation.**

Prior to the official test, each test exhaust system selected in accordance with § 205.171–2 must be prepared in accordance with § 205.168–6.

(Sec. 13 of the Noise Control Act (42 U.S.C. 4912))

**§ 205.171–5 Test motorcycle preparation.**

Prior to the official test, each motorcycle selected in accordance with § 205.171–3 must be prepared in accordance with § 205.168–7.

(Sec. 13 of the Noise Control Act (42 U.S.C. 4912))

**§ 205.171–6 Testing procedures.**

(a) The manufacturer of the exhaust system must conduct one valid test in accordance with the appropriate test procedure specified in Appendix I for each exhaust system selected for testing under this subpart.

(b) No maintenance may be performed on test exhaust systems except as provided by § 205.171–4. In the event an exhaust system is unable to complete the noise emission test, the manufacturer may replace the exhaust system. Any replacement exhaust system must be a production exhaust system of the same category as the exhaust system which it replaced, and it is subject to all the provisions of this subpart.

(Sec. 13 of the Noise Control Act (42 U.S.C. 4912))

**§ 205.171–7 Reporting of the test results.**

(a)(1) The manufacturer must submit a copy of the test report for all testing conducted pursuant to § 205.171 at the conclusion of each 24-hour period during which testing is done.

(2) For each test conducted, the manufacturer must provide the following information:

(i) Category identification where applicable;

(ii) Year, manufacturing date, serial number and model of exhaust system;

(iii) Year, make serial number, and model of test motorcycle; and

(iv) Test results by serial numbers.

(b) In the case where an EPA Enforcement Officer is present during testing required by this subpart, the written reports requested in paragraph (a) of this section may be given directly to the Enforcement Officer.

(c) Within 5 days after completion of an SEA, the manufacturer must submit to the Administrator a final report which will include the following:

(1) The name, location, and description of the manufacturer's noise emission test facilities which meet the specifications of Appendix I and where utilized to conduct testing reported under this section, except, that a test facility that has been described in a previous submission under this subpart need not again be described, but must be identified as that facility.

(2) The following information for each noise emission test conducted:

(i) The individual records required by § 205.172 (a)(2) for all noise emission tests including for each invalid test, the reason for invalidation;

(ii) A complete description of any modification, repair, preparation, maintenance, or testing, which could affect the noise emissions of the product and which was performed on the test exhaust system but not performed on all other production exhaust systems;

(iii) The test results for any replacement exhaust system and the reason for its replacement.

(3) A complete description of the sound data acquisition system if other than that specified in Appendix I.

(4) The following statement and endorsement:

This report is submitted pursuant to Section 6 and Section 13 of the Noise Control Act of 1972. To the best of (company name) knowledge, all testing for which data is reported here was conducted in strict conformance with applicable regulations under 40 CFR Parts 205 *et seq.*, all the data reported here are a true and accurate representation of such testing, and all other information reported here is true and accurate. I am aware of the penalties associated with violations of the Noise Control Act of 1972 and the regulations thereunder. (authorized representative).

(5) Additional information required by the test request.

(d) Information required to be submitted to the Administrator under this section must be sent to the following address: Director, Noise and Radiation Enforcement Division, (EN–387), U.S. Environmental Protection Agency, Washington, D.C. 20460.

(Sec. 13 of the Noise Control Act (42 U.S.C. 4912))

**§ 205.171–8 Passing or failing under SEA.**

(a) A failing exhaust system is one which, when installed on any motorcycle which is in compliance with the requirements of subpart D and for which it is designed and marketed, together with such motorcycle produces a measured noise level in excess of the applicable noise emission standard in § 205.166.

(b) The number of failing vehicles in a sample determines whether the sample passes or fails (See applicable tables in Appendix II). If the number of failing vehicles is greater than or equal to the number in Column B, the sample fails. If the number of failing vehicles is less than or equal to the number in Column A, the sample passes.

(c) Pass or failure of a SEA takes place when a decision that an exhaust system is a passing or failing unit is made on the last exhaust system required to make a decision under paragraph (b) of this section.

(d) If the manufacturer passes the SEA, he will not be required to perform any additional testing on subsequent exhaust systems to satisfy the test request.

(e) The Administrator may terminate testing earlier than required in paragraph (b), based on a request by the manufacturer, accompanied by voluntarily ceasing distribution in commerce of exhaust systems from the category in question, manufactured at the plant which produced the exhaust systems being tested. Before reinitiating distribution in commerce of that exhaust system category from that plant, the manufacturer must take the action described in § 205.171–10(a)(1) and (2).

(Sec. 13 of the Noise Control Act (42 U.S.C. 4912))

**§ 205.171–9. Continued testing.**

(a) If an SEA failure occurs according to paragraph (b) of § 205.171–8, the Administrator may require that any or

all exhaust systems of that category produced at that plant be tested before distribution in commerce.

(b) The Administrator will notify the manufacturer in writing of his intent to require continued testing of exhaust systems under paragraph (a) of this section.

(c) The manufacturer may request a hearing on the issues of whether the SEA was conducted properly; whether the criteria for SEA failure have been met; and the appropriateness or scope of a continued testing order. If a hearing is requested, the hearing will begin no later than 15 days after the date on which the Administrator received the hearing request. Neither the request for a hearing nor the fact that a hearing is in progress will affect the responsibility of the manufacturer to commence and continue testing required by the Administrator pursuant to paragraph (a) of this section.

(d) Any tested exhaust system which demonstrates conformance with the applicable standard may be distributed into commerce.

(e) Any distribution into commerce of an exhaust system which does not comply with the applicable standard is a prohibited act.

(Secs. 10 and 13 of the Noise Control Act (42 U.S.C. 4909 and 4912))

**§ 205.171–10. Prohibition on distribution in commerce; manufacturer's remedy.**

(a) The Administrator will permit the manufacturer to cease testing under § 205.171–9 after the manufacturer has taken the following actions:

(1) Submission of a written report to the Administrator which identifies the reason for the noncompliance of the exhaust systems, describes the problem and describes the proposed quality control or quality assurance remedies to be taken by the manufacturer to correct the problem, or establishes that the requirements for an engineering change pursuant to § 205.168–9 have been completed, and

(2) Demonstration that the specified exhaust system category has passed a retest conducted in accordance with § 205.171 and the conditions specified in the test request.

(b) The manufacturer may begin testing under paragraph (a)(2) of this section upon submitting the report, required by paragraph (a)(1) of this section any may cease continued testing upon making the demonstration required by paragraph (a)(2) of this section. The Administrator may require resumption of continued testing if he determines that the manufacturer has not satisfied the requirements of paragraphs (a)(1) and (2) of this section.

(c) Any exhaust system failing the noise emission tests conducted pursuant to Appendix I may not be distributed into commerce until necessary adjustment or repairs have been made and the exhaust system passes a retest.

(Secs. 11 and 13 of the Noise Control Act (42 U.S.C. 4910, 4912))

**§ 205.172 Maintenance of records; submittal of information.**

(a) Except as otherwise provided in regulation, the manufacturer of any new exhaust system subject to any of the standards or procedures prescribed in this subpart must establish, maintain and retain the following adequately organized and indexed records:

(1) General records:

(i) Identification and description by category parameters of all exhaust systems in the manufacturer's product line;

(ii) A description of any procedures other than those contained in this subpart used to perform noise emission tests on any test exhaust system;

(iii) A record of the calibration of the acoustical instrumentation as is described in Appendix I;

(iv) A record of the date of manufacture of each exhaust system subject to this subpart, keyed to the serial number.

(2) Individual records for test exhaust systems:

(i) A complete record of all noise emission tests performed for Production Verification and Selective Enforcement Audit (except tests performed by EPA directly), including all individual worksheets and other documentation or exact copies relating to each test;

(ii) A record of the information recorded as described in Appendix I; and

(iii) A record and description of all repairs, maintenance and other servicing which were performed before successful testing of the exhaust system pursuant to these regulations and which could affect the noise emission of the exhaust system, giving the date and time of the maintenance or service, the reason for it, the person authorizing it, and the names of supervisory personnel responsible for the conduct of the maintenance or service.

(3) A properly filed production verification report following the format prescribed by the Administrator in § 205.168–3 fulfills the requirements of paragraphs (a)(1)(i) and (ii) of this section.

(4) All records required to be maintained under this subpart must be retained by the manufacturer for a period of three (3) years from the production verification date. Records may be retained as hard copy or alternatively reduced to microfilm, punch cards, etc., depending on the record retention procedures of the manufacturer; however, when an alternative method is used, all information contained in the hard copy must be contained in the copy made by the alternative method.

(b) The manufacturer must, upon request, submit to the Administrator the following information with regard to new exhaust system production:

(1) Number of exhaust systems, by category, scheduled for production for the time period designated in the request.

(2) Number of exhaust systems, by category, produced during the time period designated in the request.

(c) The reporting requirements of this regulation will no longer be effective after five (5) years from the last effective date of this regulation. However, the requirements will remain in effect if the Administrator is taking appropriate steps to repromulgate or modify the reporting requirements at that time.

(Sec. 13 of the Noise Control Act (42 U.S.C. 4912))

**§ 205.173 In-use requirements.**

**§ 205.173–1 Warranty.**

(a) The exhaust system manufacturer who is required to production verify under this subpart must include in the information supplied to the ultimate purchaser pursuant to section 205.173–4, the following statement:

**Noise Emission Warranty**

[The manufacturer] warrants that this exhaust system, at time of sale, meets all applicable U.S.E.P.A. Federal noise standards. This warranty extends to the first person who buys this exhaust system for purposes other than resale, and to all subsequent buyers. Warranty claims should be directed to ————. (Manufacturer shall fill in this blank with his name, address and telephone number.)

(b) The manufacturer must submit to the Administrator a copy of all information of a general nature provided to dealers and other agents on the administration or coverage of the noise emission warranty. Such information must be submitted not later than ten (10) days after distribution.

(c) All information must be sent to:

Director, Noise and Radiation Enforcement Division (EN–387), Environmental Protection Agency, Washington, D.C. 20460.

(Sec. 13 of the Noise Control Act (42 U.S.C. 4912))

**§ 206.173–2 Tampering.**

The manufacturer who conducts production verification of a category

must include the following statement pursuant to § 205.173–4 with each product of that category the manufacturer distributes into commerce:

**Tampering Prohibition**

Federal law prohibits any modification to this exhaust system which causes the motorcycle to exceed the Federal noise standard. Use of the motorcycle with such a modified exhaust system is also prohibited.

Acts likely to constitute tampering include removal or puncturing the muffler, baffles, header pipes, or any other component which conducts exhaust gases.

(Secs. 10, 13 of the Noise Control Act (42 U.S.C. 4909, 4912))

**§ 205.173–3 Warning statement.**

The manufacturer who conducts production verification on a category must include the following statement pursuant to § 205.173–4 with each product of that category the manufacturer distributes into commerce:

Warning: This product should be checked for repair or replacement if the motorcycle noise has increased significantly through use. Otherwise, the owner may become subject to penalties under state and local ordinances.

(Sec. 13 of the Noise Control Act (42 U.S.C. 4912))

**§ 205.173–4 Information sheet.**

The manufacturer must include the Noise Emissions Warranty statement, Tampering Prohibition statement and the Warning statement with each product. All three statements must be printed on a white sheet or card at least 8½"×11". Each statement must cover no more than ⅓ of the sheet or card. No other printing must be on the sheet. The statements must be printed in black ink; the statement headings must be in capital letters in a minimum size type of 12 point (pica type) or its equal; and the test of the statement must be a minimum size type of 10 point (elite type) or its equal. The sheet or card must be placed with the exhaust system inside any packaging. If there is no packaging, the sheet or card must be affixed to the exhaust system so that it will not be accidentally detached in shipping.

(Sec. 13 of the Noise Control Act (42 U.S.C. 4912))

**§ 205.173–5 Retention of durability records.**

(a) Each manufacturer responsible for compliance with the standards specified in § 205.166 must establish and maintain records for each exhaust system category containing the information upon which the manufacturer relied in determining that the products will meet the standards for the acoustical assurance period.

The records may include, but need not be limited to, the following:

(1) Durability data and actual noise testing on critical noise attenuating components.

(2) Noise level deterioration curves on the exhaust system.

(3) Data from products in actual use.

(4) Engineering judgment.

(b) [Reserved]

(Sec. 13 of the Noise Control Act (42 U.S.C. 4912))

**§ 205.174 Remedial orders.**

The Administrator may issue appropriate remedial orders to a manufacturer if products are distributed into commerce not in compliance with the regulations of this subpart. Potential orders are stop sale orders, orders to cease distribution, relabel, replace or recall, or any other orders appropriate in the specific circumstances. A remedial order will be issued only after notice and opportunity for a hearing in accordance with 5 U.S.C. 554.

(Sec. 11 of the Noise Control Act (42 U.S.C. 4910))

**Appendix I to Subparts D and E—Motorcycle Noise Emission Test Procedures Appendix I–1 to Subparts D and E—Test Procedure for Street and Off-road Motorcycles**

(a) *Instrumentation.*

Proper usage of all test instrumentation is essential to obtain valid measurements. Operating manuals or other literature furnished by the instrument manufacturer must be referred to for both recommended operation of the instrument and precautions to be observed. The following instrumentation must be used, where applicable:

(1) A sound level measurement system which meets the type S1A requirements of American National Standard Specification for Sound Level Meters, ANSI S1.4–1971. As an alternative to making direct measurements using a sound level meter, a microphone or sound level meter may be used with a magnetic tape recorder and/or a graphic level recorder or indicating instrument provided that the system meets the performance requirements of ANSI S1.4–1971. The sound level measurement system must be calibrated at least annually to insure that the system meets the performance requirements of ANSI S1.4–1971.

(2) An acoustic calibrator with an accuracy of within ±0.5 dB. The calibrator must be checked annually to verify that its output is within the specified accuracy.

(3) (i) An engine speed measurement system having the following characteristics:

(A) Steady-state accuracy of within ±3% of actual engine speed in the range of 45% to 100% of the engine speed (RPM) where peak net brake power (maximum rated RPM) is developed; and

(B) Response characteristics such that, when closing RPM is indicated under an acceleration as described below, actual engine speed is no more than 3 percent (of closing RPM) greater than the specified closing RPM.

(ii) The vehicle tachometer may be used to ascertain:

(A) The approach RPM provided its meets the specifications in subparagraph (a)(3)(i)(A).

(B) The closing RPM provided it meets the specifications in subparagraphs (a)(3)(i)(A) and (B).

(iii) Indirect engine speed measurement systems, such as systems which determine engine speed from vehicle speed measurement, may be used provided the specifications of paragraph (a)(1)(i) are met.

(4) An anemometer with steady-state accuracy of within ±10% at 20 km/h (12.4 mph).

(5) A microphone wind screen which does not affect microphone response more than ±0.5 dB for frequencies of 20–4000 Hz or ±1.0 dB for frequencies of 4000–10,000 Hz, taking into account the orientation of the microphone.

(b) *Test site.*

(1) The measurement area within the test site must meet the following requirements and be laid out as described:

(i) The following points must be established:

(A) Microphone target point—a reference point on the vehicle path;

(B) End point— a point on the vehicle path 7.5 ± 0.3m (24.6 ± 1.0 ft) beyond the microphone target point, and

(C) Microphone location point—a point 15± 0.3m (49.2 ± 1.0 ft) from the microphone target point on a normal to the vehicle path through the microphone target point.

(ii) The microphone must be:

(A) Positioned at the microphone location point 1.2 ± 0.1 m (3.9 ± 0.3 ft) above the ground plane; and

(B) Oriented in a plane perpendicular to the vehicle path, and at an angle for which the microphone was calibrated to have the flatest response characteristics over the frequency range of 100 Hz to 10,000 Hz when measured with respect to the motorcycle source.

(iii) the surface of the ground within at least the triangular area formed by the microphone location and the points 15 ± 0.3m (49.2 ±1.0 ft.) prior to and 15 ± 0.3 m (49.2 ± 1.0 ft.) beyond the microphone target point must be flat (+ 5 cm (2.0 in)) and level (grade not more than 0.5% along vehicle path), have a concrete or sealed asphalt surface, and be free from snow, soil or other extraneous material.

(iv) The vehicle path must be relatively smooth and of sufficient length for safe acceleration, deceleration and stopping of the motorcycle.

(2) The test site must be flat, open space free of large sound-reflecting surfaces (other than the ground), such as parked vehicles, sign-boards, buildings or hillsides located within a 30 ± 0.3 m (98.4 ± 1.0 ft) radius of the microphone location and the following points on the vehicle path (see Figure 1):

(i) The microphone location point;

(ii) A point 15 ± 0.3 m (49.2 ± 1.0 ft.) before the microphone target point; and

(iii) A point 15 ± 0.3 m (49.2 ± 1.0 ft) beyond the microphone target point.

(c) *Measurement procedure.*

(1) To establish the acceleration point, the end point must be approached in second gear

from the reverse of the intended test direction at a constant engine speed of 50% of maximum rated RPM or closing RPM less ten percent of (of maximum rated RPM), whichever is lower, (±2.5% of observed reading). When the front of the motorcycle reaches the end point (approached from the reverse direction), the throttle must be smoothly and fully opened to accelerate the motorcycle past the microphone target point under wide open throttle. When the motorcycle reaches closing RPM the throttle must be smoothly and fully closed. An ignition disable device may be used to turn off the engine at closing RPM in lieu of closing the throttle manually. The location of the front of the motorcycle at the time of throttle closure is the acceleration point for the test runs. The test runs must be made in the opposite direction. A sufficient number of trial runs must be made to assure accurate establishment of the acceleration point.

(2) Closing RPM must be determined according to the motorcycle engine displacement, as follows (see Figure 2):

| Displacement (cc) | Closing RPM (Fraction of Maximum Rated RPM—Percent) |
|---|---|
| 0–175 | 95 |
| 176–675 | 109–0.08 × (engine displacement in cc) |
| 676 and above | 55 |

(3) The distance from the acceleration point to the end point must be at least 10 m (32.8 ft). If this distance is less than 10 m (32.8 ft) by the procedure specified in paragraph (c)(1), above, third gear, if the motorcycle is so equipped, must be used. If the distance is still less than 10 m (32.8 ft), fourth gear, if the motorcycle is so equipped, must be used, and so on. If closing RPM is reached before the vehicle travels 10 m (32.8 ft), with the vehicle in its highest gear, the throttle must be opened less rapidly, but in such a manner that full throttle and closing RPM are attained at the end point.

(4) If the motorcycle is equipped with an automatic transmission, the procedure specified in paragraph (c)(1), above, must be followed except that the lowest selectable range must be employed, and the procedure specified in paragraph (c)(3) must be followed using the next selectable higher range, if necessary, and if the vehicle is so equipped. If closing RPM is reached before the vehicle travels 10 m (32.8 ft.), the throttle must be opened less rapidly, but in such a manner that full throttle and closing RPM are attained at the end point.

(5) Throttle opening must be controlled to avoid excessive wheel slip or lift-off.

(6) To conduct a sound measurement, the motorcycle must proceed along the vehicle path in the forward direction in second gear (or higher gear as applicable under paragraph (c)(3)) at a constant engine speed of 50% of maximum rated RPM or at closing RPM less ten percent (of maximum rated RPM), whichever is lower (± 2.5 percent of observed reading). When the front of the vehicle reaches the acceleration point, the throttle must be smoothly and fully opened. Full acceleration must continue until closing RPM is reached, which must occur within ± 1.0 m (3.3 ft.) of the end point, and at which time the throttle must be smoothly and fully closed. An ignition disable device may be used to turn off the engine at closing RPM in lieu of closing the throttle manually.

(7) A sufficient number of preliminary runs must be conducted before the testing to familiarize the rider with the test procedure and operating conditions of the vehicle. The engine temperature must be within the normal operating range prior to each run.

(d) *Measurements.*

(1) The sound level meter must be set for fast response and for the A-weighting network. The microphone wind screen must be used. The sound level meter must be calibrated with the acoustic calibrator as often as is necessary throughout testing to maintain the accuracy of the measurement system.

(2) The sound level meter must be observed throughout the acceleration period. The highest sound level obtained for the run must be recorded.

(3) Measurements must be made until at least four readings from each side are within 2 dB of each other. The noise level for each side is the average of the four which are within 2 dB of each other. The noise level reported must be for that side of the motorcycle having the highest noise level.

(4) While making sound level measurements, not more than one person other than the rider and the observer reading the meter may be within 15 m (49.2 ft) of the vehicle or microphone, and that person must be directly behind the observer reading the meter, on a line through the microphone and the observer.

(5) The ambient noise level (including wind effects) at the test site due to sources other than the motorcycle being measured must be at least 10 dB lower than the noise level at the microphone location produced by the motorcycle under test.

(6) Wind speed at the test site during tests must be less than 20 km/h (12.4 mph).

(e) *Required data.* For each valid test, the following data must be recorded:

(1) Motorcycle type, serial number, model year, and date of manufacture.

(2) Names of persons conducting test.

(3) Test location.

(4) Wind speed and ambient noise level measured on the same day as the test and representative of conditions during the test.

(5) Motorcycle engine displacment, maximum rated RPM, and closing RPM.

(6) The gear used for testing if other than second gear; or type of transmission and description of testing if motorcycle is equipped with automatic transmission.

(7) Description of the sound level meter including type, serial number, and calibration date.

(8) Description of the external acoustic calibrator including type, serial number, and calibration date.

(9) Description of the tachometer or engine speed measurement system used for conducting the test.

(10) Maximum noise level for each pass on each side of the motorcycle including invalid readings and reasons for invalidation.

(11) Reported noise level.

(12) Other information as appropriate to completely describe testing conditions and procedure.

**Appendix I–2 to Subparts D and E—Test Procedure for Street Motorcycles That Meet the Definition of § 205.151(a)(2)(ii) (Moped-type Street Motorcycles).**

(a) *Instrumentation.* Proper usage of all test instrumentation is essential to obtain valid measurements. Operating manuals or other literature furnished by the instrument manufacturer must be referred to for both recommended operation of the instrument and precautions to be observed. The following instrumentation must be used, where applicable:

(1) A sound level measurement system which meets the type SIA requirements of American National Standard Specification for Sound Level Meters, ANSI S1.4–1971. As an alternative to making direct measurements using a sound level meter, a microphone or sound level meter may be used with a magnetic tape recorder and/or a graphic level recorder or indicating instrument provided that the system meets the performance requirements of ANSI S1.4–1971. The sound level measurement system must be calibrated at least annually to insure that the system meets the performance requirements of ANSI S1.4–1971.

(2) An acoustic calibrator with an accuracy of within ±0.5 dB. The calibrator must be checked annually to verify that its output is within the specified accuracy.

(3) An anemometer with steady-state accuracy of within ±10% at 20 km/h (12.4 mph).

(4) A microphone wind screen which does not affect microphone response more than ±0.5 dB for frequencies of 20–4000 Hz or ±1.0 dB for frequencies of 4000–10,000 Hz, taking into account the orientation of the microphone.

(b) *Test site.* (1) The measurement area within the test site must meet the following requirements and be laid out as described:

(i) The following points must be established:

(A) Microphone target point—a reference point on the vehicle path;

(B) End point—a point on the vehicle path 7.5±0.3 m (24.6±1.0 ft) beyond the microphone target point; and

(C) Microphone location point—a point 15±0.3 m (49.2±1.0 ft) from the microphone target point on a normal to the vehicle path through the microphone target point. Alternately, the microphone location point may be a point 7.5±0.3 m (24.6±1.0 ft) from the microphone target point provided that the sound level reported is adjusted as provided in this appendix under paragraph (d)(3).

(ii) The microphone must be:

(A) Positioned at the microphone location point 1.2±0.1 m (3.9±0.3 ft) above the ground plane; and

(B) Oriented in a plane perpendicular to the vehicle path, and at an angle for which the microphone was calibrated to have the flattest response characteristics over the

frequency range of 100 Hz to 10,000 Hz when measured with respect to the motorcycle source.

(iii) The surface of the ground within at least the triangular area formed by the microphone location and the points 15±0.3 m (49.2±1 ft) prior to and 15±0.3 m beyond the microphone target point must be flat (±5 cm (2.0 in)) and level (grade not more than 0.5% along vehicle path), have a concrete or sealed asphalt surface, and be free from snow, soil or other extraneous material.

(iv) The vehicle path must be relatively smooth and of sufficient length for safe acceleration, deceleration and stopping of the motorcycle.

(2) The test site must be a flat, open space free of large sound-reflecting surfaces (other than the ground), such as parked vehicles, signboards, buildings or hillsides located within a 30±0.3 m (98.4±1.0 ft) radius of the microphone location and the following points on the vehicle path (see Figure 1):

(i) The microphone location point;

(ii) A point 15±0.3 m (49.2±1 ft) before the microphone target point; and

(iii) A point 15±0.3 m (49.2±1 ft) beyond the microphone target point.

(c) *Measurement procedure.* (1) The combined weight of the test rider and test equipment used on the motorcycle must not be more than 80 kg (176 lb) nor less than 75 kg (165 lb). Weights shall be placed on the motorcycle saddle behind the rider to compensate for any difference between the actual driver/equipment load and the required 75 kg (165 lb) minimum.

(2) The motorcycle must approach the microphone target point with the throttle fully open and in the highest gear. The motorcycle must start such that maximum speed is reached before the vehicle is within 7.5 m of the microphone target point. The motorcycle must continue along the vehicle path with fully open throttle and at maximum speed past the end point, at which time the throttle must be closed.

(3) If the motorcycle is equipped with an automatic transmission, the procedure of subparagraph (1), above, must be followed except that the highest selectable range shall be employed.

(d) *Measurements.* (1) The sound level meter must be set for fast response and for the A-weighting network. The microphone wind screen must be used. The sound level meter must be calibrated with the acoustic calibrator as often as is necessary throughout testing to maintain the accuracy of the measurement system.

(2) The sound level meter must be observed throughout the passby period. The highest noise level obtained for the run must be recorded.

(3) At least three measurements shall be made for each side of the motorcycle. Measurements must be made until at least three readings from each side are within 2 dB of each other. The noise level for each side must be the average of the three. The noise level reported must be for that side of the motorcycle having the highest noise level. If the microphone location point is 7.5 m from the vehicle path as allowed in this appendix under paragraph (b)(1)(i)(c), the noise level must be adjusted by subtracting 6 dB prior to being reported.

(4) While making noise level measurements, not more than one person other than the rider and the observer reading the meter may be within 15 m (49.2 ft) of the vehicle or microphone, and that person must be directly behind the observer reading the meter, on a line through the microphone and the observer.

(5) The ambient sound level (including wind effects) at the test site due to sources other than the motorcycle being measured must be no greater than 60 dB if the microphone is located 15 m from the vehicle path or 66 dB if the microphone is located 7.5 m from the vehicle path as allowed in this appendix under paragraph (b)(1)(i)(c).

(6) Wind speed at the test site during tests must be less than 20 km/h (12.4 mph).

(e) *Required data.* For each valid test, the following data must be recorded:

(1) Motorcycle type, serial number, model year, and date of manufacture.

(2) Names of persons conducting test.

(3) Test location.

(4) Wind speed and ambient noise level measured on the same day as the test and representative of conditions during the test.

(5) Description of the sound level meter including type, serial number, and calibration date.

(6) Description of the external acoustic calibrator including type, serial number, and calibration date.

(7) Maximum noise level for each pass on each side of the motorcycle including invalid readings and reasons for invalidation.

(8) Reported noise level.

(9) Other information as appropriate to completely describe testing conditions and procedure.

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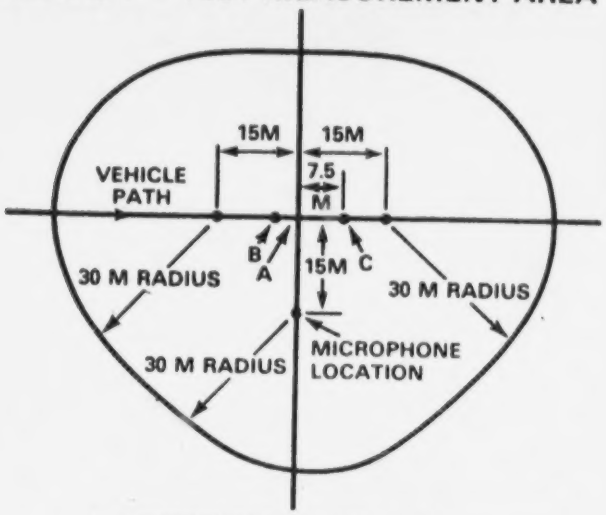
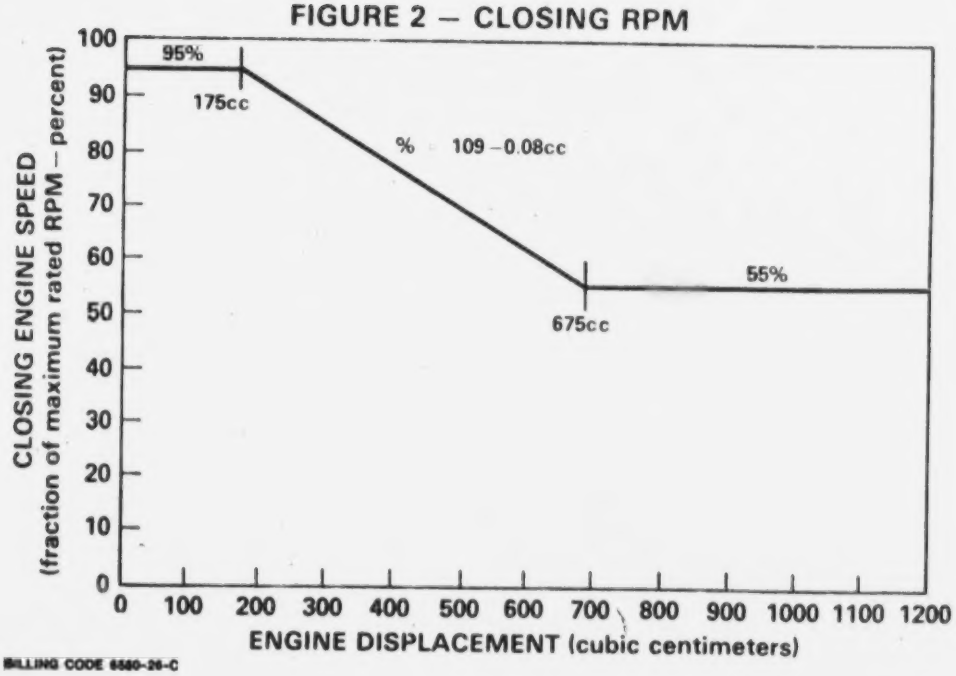
FIGURE 1 – TEST MEASUREMENT AREA




A – MICROPHONE TARGET POINT
B – ACCELERATION POINT (VARIABLE)
C – END POINT

TEST MEASUREMENT AREA

FIGURE 2 – CLOSING RPM

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## Appendix II Sampling Tables

### Table 1—Model Year Production Volume of 50–99 Vehicles

| Cumulative number of tests | Number of failing vehicles | |
|---|---|---|
| | Column A | Column B |
| 1 | | |
| 2 | | |
| 3 | | 3 |
| 4 | | 3 |
| 5 | | 3 |
| 6 | | 3 |
| 7 | 0 | 3 |
| 8 | 0 | 4 |
| 9 | 0 | 4 |
| 10 | 0 | 4 |
| 11 | 1 | 4 |
| 12 | 1 | 4 |
| 13 | 1 | 5 |
| 14 | 1 | 5 |
| 15 | 2 | 5 |
| 16 | 2 | 5 |
| 17 | 2 | 5 |
| 18 | 2 | 5 |
| 19 | 2 | 5 |
| 20 | 4 | 5 |

### Table 2—Model Year Production Volume of 100–199 Vehicles

| Cumulative number of tests | Number of failing vehicles | |
|---|---|---|
| | Column A | Column B |
| 1 | | |
| 2 | | |
| 3 | | 3 |
| 4 | | 3 |
| 5 | | 3 |
| 6 | | 3 |
| 7 | 0 | 4 |
| 8 | 0 | 4 |
| 9 | 0 | 4 |
| 10 | 0 | 4 |
| 11 | 1 | 4 |
| 12 | 1 | 5 |
| 13 | 1 | 5 |
| 14 | 1 | 5 |
| 15 | 1 | 5 |
| 16 | 2 | 5 |
| 17 | 2 | 5 |
| 18 | 2 | 5 |
| 19 | 2 | 5 |
| 20 | 4 | 5 |

### Table 3—Model Year Production Volume of 200–399 Vehicles

| Cumulative number of tests | Number of failing vehicles | |
|---|---|---|
| | Column A | Column B |
| 1 | | |
| 2 | | |
| 3 | | 3 |
| 4 | | 3 |
| 5 | | 3 |
| 6 | | 3 |
| 7 | 0 | 4 |
| 8 | 0 | 4 |
| 9 | 0 | 4 |
| 10 | 0 | 4 |
| 11 | 0 | 5 |
| 12 | 1 | 5 |
| 13 | 1 | 5 |
| 14 | 1 | 5 |
| 15 | 1 | 5 |
| 16 | 2 | 5 |
| 17 | 2 | 5 |
| 18 | 2 | 5 |
| 19 | 2 | 5 |
| 20 | 4 | 5 |

### Table 4—Model Year Production Volume of 400 or More Vehicles

| Cumulative number of tests | Number of failing vehicles | |
|---|---|---|
| | Column A | Column B |
| 1 | | |
| 2 | | |
| 3 | | 3 |
| 4 | | 3 |
| 5 | | 3 |
| 6 | | 4 |
| 7 | 0 | 4 |
| 8 | 0 | 4 |
| 9 | 0 | 4 |
| 10 | 0 | 4 |
| 11 | 0 | 5 |
| 12 | 1 | 5 |
| 13 | 1 | 5 |
| 14 | 1 | 5 |
| 15 | 1 | 5 |
| 16 | 2 | 5 |
| 17 | 2 | 5 |
| 18 | 2 | 5 |
| 19 | 2 | 5 |
| 20 | 4 | 5 |

[FR Doc. 80-40478 Filed 12-30-80; 8:45 am]
BILLING CODE 6560-01-M

*U.S. GOVERNMENT PRINTING OFFICE:1981 341-082/224 1-3

federal register

Wednesday
December 31, 1980

THIS DOCUMENT DIFFERS FROM THE FEDERAL REGISTER NOTICE OF WEDNESDAY, DECEMBER 31, 1980 (45 FR 86731) ONLY IN THAT, IN THE PREAMBLE, TYPOGRAPHICAL ERRORS HAVE BEEN CORRECTED.

## Part IV

# Environmental Protection Agency

**Noise Emission Standards for Transportation Equipment; Additional Testing Requirements for Motorcycles and Motorcycle Exhaust Systems; Proposed Rulemaking**

**ENVIRONMENTAL PROTECTION AGENCY**

**40 CFR Part 205**

**[N-FRL 1518-1]**

## Noise Emission Standards for Transportation Equipment; Additional Testing Requirement for Motorcycles and Motorcycle Exhaust Systems

**AGENCY:** U.S. Environmental Protection Agency (EPA).

**ACTION:** Notice of Proposed Rulemaking (NPRM).

**SUMMARY:** The Environmental Protection Agency (EPA) proposes to amend the testing requirements for Noise Emission Standards for Motorcycles and Motorcycle Exhaust Systems, published elsewhere in today's **Federal Register**. The proposed amendments will require manufacturers to remove all easily removable components from their exhaust systems before conducting the tests necessary to show compliance with applicable standards. This action is necessary because the control of motorcycle noise is dependent on exhaust systems retaining their noise suppression performance beyond the time of sale. These amendments are expected to encourage manufacturers to design exhaust systems in ways which will reduce the incidence of tampering by consumers.

**DATE:** The official docket for this proposed rulemaking will remain open for submission of written comments until 4:30 pm, March 31, 1981.

**ADDRESS:** Written comments to the docket should be mailed to the following address: Director, Standards and Regulations Division, Attention: ONAC Docket 81-01 (Motorcycles), ANR-490, U.S. Environmental Protection Agency, Washington, D.C. 20460.

**FOR FURTHER INFORMATION CONTACT:** Mr. Fred Newberry, Project Officer, Standards and Regulations Division (ANR-490), U.S. Environmental Protection Agency, Washington, D.C. 20460; or phone (202) 557-7666.

**SUPPLEMENTARY INFORMATION:**

Elsewhere in today's **Federal Register**, EPA is promulgating Noise Emission Standards for Motorcycles and Motorcycle Exhaust Systems. By establishing these noise standards the Agency expects to reduce the adverse effects of high levels of motorcycle noise on the public's health and welfare. Lowering motorcycle noise levels is expected to result in approximately a 55-75 percent reduction in interference with human activities and a 7-11 percent reduction in the extent and severity in overall traffic noise impact. However, the success of these final regulations is largely dependent on motorcycle exhaust systems retaining their noise suppression performance beyond the time of sale. Exhaust systems lose their noise attentuation characteristics because of two factors: Degradation of components and simple removal of components. The problem of highly degradable components such as certain "glass packs" in motorcycle exhaust systems is dealt with in the regulation by the requirement that motorcycle exhaust systems when properly used and maintained on Federally-regulated motorcycles must meet applicable noise emission standards over a specified period of time. The Agency plans to deal with the problem of easily removable components in exhaust systems, such as baffles, by proposing these amendments to the regulation.

Several aftermarket manufacturers offer exhaust systems with a variety of removable baffles or adjustable vanes that can be added or decreased in number to obtain the desired results in performance and noise level. Some mufflers are distributed with a kit containing two baffles: One for use in off-road situations which will increase performance (and noise) and a second baffle for quieter street use. Removal of these baffles is usually accomplished by simply removing bolts or screws. Table 4-1 of the "Regulatory Analysis of Noise Emission Regulations for Motorcycles and Motorcycle Exhaust Systems" (EPA Document No. 550/9-80-217) shows the effects of changing exhaust system baffles on performance and noise levels. Exchanging the baffles on one manufacturer's exhaust system increased the noise levels of the test motorcycle by 10 dB.

The effects of completely removing baffles from motorcycle exhaust systems are shown on page 4-25 of the Regulatory Analysis. Removal of these baffles caused the noise level of motorcycles to increase from 15 to 29 dB above the noise levels of the same motorcycle with an original equipment (OEM) exhaust system. By comparison, when the OEM muffler was completely removed, the motorcycle's noise level increased between 16 and 22 dB. Thus, the effects of removing baffles from a muffler can be more significant than removing the muffler itself. This is because a muffler without baffles can act as a megaphone and actually amplify the noise levels emitted by the motorcycle.

Although the removal of baffles from a Federally-regulated motorcycle exhaust system constitutes a tampering violation under the provisions of the Noise Control Act, the Agency believes that this is and can be expected to remain a major noise problem unless the Agency takes further action. The Agency had considered a program by which exhaust systems would be evaluated on the basis of design characteristics, to discourage the manufacture of motorcycle exhaust systems with easily removable baffles and highly degradable components. (Refer to Issues 3.8 and 9.21 of the Docket Analysis to the NRM.) However, the unfavorable public comments and analyses by the Agency indicated that a better solution for this issue was necessary. Accordingly, the Agency is proposing this amendment to require manufacturers to conduct the testing required to demonstrate compliance to the noise standards with all easily removable components of the exhaust system removed. The Agency believes that this requirement will encourage manufacturers to design exhaust systems which will reduce the incidence of tampering by consumers, or which will comply with applicable standards when easily removable components are removed.

The Agency proposes that these amendments be effective one year after promulgation to allow manufacturers adequate lead time for design and production of complying exhaust systems. A number of manufacturers currently produce replacement exhaust systems with permanent fixtures. Making a baffle a permanent fixture, rather than removable, by welding or other simple means is not expected to require extensive redesign of current exhaust systems nor increase their costs. The following discusses the provisions of the proposed amendments.

1. The Agency proposes to amend § 205.151(a) by adding subparagraph (31) which defines "easily removable component."

2. and 3. The Agency proposes to amend Appendix I-1 and Appendix I-2 by adding a new paragraph, *Vehicle Preparation*. The new paragraph requires motorcycle and motorcycle replacement exhaust system manufacturers to remove all "easily removable components" of exhaust systems before testing their products. Since Appendix I-1 and Appendix I-2 are the EPA test procedures for showing compliance with applicable noise emission standards for EPA Product Verification Testing and Selective Enforcement Audits, the Agency predicts that these manufacturers will be discouraged from designing exhaust

systems with "easily removable components" unless their product can pass the test with these components removed.

**Note.**—EPA has determined that this action is not a "significant" regulation, and therefore does not require a Regulatory Analysis in accordance with Executive Order 12044.

The Agency is committed by statute and policy to public participation in the decisionmaking process for its environmental regulations. That policy encourages and solicits communications and public comments on all aspects of the proposed amendments to the regulation. These contributions are desired from as many diverse views as possible and when received, such information will be fully analyzed. Necessary changes in these proposed amendments will be made and explained when the amendments are published in final form.

These amendments are proposed under authority of Sections 6 and 13 of the Noise Control Act of 1972, 42 U.S.C., 4095, and 4912.

Dated: December 19, 1980.

**Douglas M. Costle,**

*Administrator.*

The Environmental Protection Agency (EPA) proposes to amend 40 CFR Part 205 as follows.

## Subpart D—Motorcycles

1. In §205.151 EPA proposes to amend paragraph (a) by adding subparagraph (31) as follows:

**§205.151 Definitions.**

(a) * * *

(31) "Easily removable component" means any exhaust system part (not to include headerpipes, expansion chambers, or the muffler shell) that can be removed, without causing highly visible damage to the exterior of the exhaust system, by removing bolts, screws, or similar fastening devices, or by shearing spot welds with hammer and chisel, or by other simple means of dislodgement.

2. EPA proposes to amend Appendix I–1 by redesignating paragraphs (c) through (e) as paragraphs (d) through (f), respectively, and by adding a new paragraph (c) as follows:

**Appendix I–1 Test Procedure for Street and Off-road Motorcycles**

* * * * *

(c) *Vehicle Preparation.* All easily removable components of the exhaust system must be removed before testing.

* * * * *

3. EPA proposes to amend Appendix I–2 by redesignating paragraphs (c) through (e) as paragraphs (d) through (f), respectively, and by adding a new paragraph (c) as follows:

**Appendix I–2. Test Procedure for Street Motorcycles That Meet the Definition of § 205.151(a)(2)(ii) (Moped-type Street Motorcycles).**

* * * * *

(c) *Vehicle Preparation.* All easily removable components of the exhaust system must be removed before testing.

* * * * *

[FR Doc. 80-40429 Filed 12-30-80; 8:45 am]

BILLING CODE 6560-27-M